


**Committee members should bring the packet,
including the attachments, from September 8.**

MEMORANDUM

TO: Transportation, Infrastructure, Energy, and Environment Committee

FROM:  Michael Faden, Senior Legislative Attorney

SUBJECT: **Worksession 4:**
Bill 37-07, Forest Conservation – Amendments
Resolution to set penalties and fees under the Forest Conservation Law

Correction On page 21 of the staff memo for this item, I quoted the Executive's transmittal memo as saying, when he recommended that DPS assume certain duties under the forest conservation law:

"More specifically, I recommend that DPS be given responsibility for implementing the Forest Conservation Law as it applies to properties that go through the development review process. This change would assist in streamlining the permitting process for most single-lot property owners that are not subject to development review."

I omitted two key words. What he actually said was:


"More specifically, I recommend that DPS be given responsibility for implementing the Forest Conservation Law as it applies to properties that **do not** go through the development review process. This change would assist in streamlining the permitting process for most single-lot property owners that are not subject to development review."

Sorry about the error.

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SUBJECT: Worksession 4:
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Resolution to set penalties and fees under the Forest Conservation Law

Overview

The Committee worksession on September 8 covered a number of introductory issues and in staff's view brought the analysis to the point where the specific issues outlined in the Forest Conservation Advisory Committee (FCAC) report on ©316-347 are ripe for discussion. Advisory Committee Chair Anne Merwin and other Advisory Committee members will present the Committee report, Department of Environmental Protection and other Executive branch staff will present the Executive's recommendations on ©348-356, and Planning Board staff will be available to comment on both. Also attached to this memo are recommendations from the County Water Quality Advisory Group (see ©357-363) and Energy and Air Quality Advisory Committee (see ©364-378). Also attached on ©313- 315 is a short summary of Councilmember Elrich's amendments, which was not included in the previous packet, a letter from the County League of Women Voters on ©379, and the Office of Management and Budget fiscal impact statement for this Bill on ©380-383.

Council staff has integrated the recommendations of the FCAC and the Executive in this memo for Committee discussion. We have not included any staff recommendations, but expect to do so for the next Committee worksession on October 6.

Forest Conservation Advisory Committee recommendations

Issue 1	Current FCL	Bill 37-07	Elrich Amendments
Definition of Forest	As currently written, consideration is given only to forested area occurring on individual property, even if forested area is part of a larger forest on adjacent properties. However, current implementation considers forested area beyond lot. [22A-3]	Same as written in current FCL. [Circle 4 Line 65]	Requires consideration of forest area "regardless of political or property boundaries." [Circle 71 Lines 64 and 67]

FCAC Comments: The Committee has two major positions that are described below.

In support of Bill 37-07: The members of the Committee who support Bill 37-07 do so out of concerns about the potential for deleterious effects on landowners if property lines are NOT considered when defining a forest. These members are concerned that FCL requirements for a given property owner could be unfairly affected by earlier forest-clearing activities of other nearby property owners. In addition, these members believe that the current law's silence on the issue of property lines allows discretion to be used by the Planning Department when applying the law.

In support of the Elrich Amendments: The Elrich amendments would mandate that forest areas be defined regardless of property lines. The members of the Committee who support the Elrich amendments do so out of concerns that if a grouping of trees is indeed a forest, it should be protected as such regardless of how many properties it spans or how much of it exists on any one property. If the law remains silent on the issue as Bill 37-07 proposes, the door would remain open for allowing property lines to dictate whether a forest is a forest. If property lines were used, it would exacerbate the effects of parcelization, a major threat to Montgomery County's forests, and cause many fewer forests to be considered under the law. It is our understanding that the Planning Department's current practice is to evaluate forests without regard to property boundaries. The Elrich amendments would simply codify this current practice, and close the door to using property lines as an arbitrary determinant of our forests.

Executive recommendation:

The CE supports Bill 37-07 but recommends that MNCPPC develop written protocols for their current implementation practices.

Issue 2	Current FCL	Bill 37-07	Elrich Amendments
Trigger for application of FCL	Tract of land must be 40,000 sq. ft. or greater for FCL to apply (except when activity would result in disturbance to champion tree, or forest in environmental buffer or special protection area) [22A-4(b), 22A-5(a)(2)(A), 22A-5(n)(2)(A), 22A-5(p)(2)]	Same as current FCL. [Circle 9 Lines 187, 194, 198, 202, 206, 221]	Mr. Elrich has indicated that he plans to alter his amendments on this issue so that they would be the same as current FCL.

FCAC Comments: The Committee understands that although Mr. Elrich originally proposed lowering the lot size threshold from 40,000 square feet (approximately 1 acre) to 10,000 square feet (approximately ¼ acre), he has since withdrawn this proposal. Consequently, neither Bill 37-07 nor the Elrich Amendments propose that lots less than 40,000 square feet be regulated under the FCL (with a few exceptions already provided for in the law).

The Committee reached consensus that retaining a 40,000 sq. ft. lot size trigger is acceptable; however members were split regarding their reasons for reaching this consensus.

Some members of the Committee actively support 40,000 sq. ft. as a reasonable threshold because they believe that this threshold will allow owners of smaller parcels to develop their properties without running into complicated FCL requirements, and that it will prevent the Planning Department staff from being overwhelmed with new applications. These members believe the FCL is not an appropriate law to address parcels smaller than 40,000 sq. ft.

Other members of the Committee are willing to accept a 40,000 sq. ft. threshold in recognition of the Planning Department staffing issues it raises, but emphasize that this lot size threshold leaves most trees and forests located on lots less than one acre without any protection under the law (although even some properties above 40,000 sq. ft. are exempt, and even forests on properties that do fall under the FCL do not all receive permanent protection via a conservation easement). These members believe that in conjunction with the variety of other exemptions available under the FCL, this regulatory “gap” leaves a significant portion of the County’s tree and forest cover without protection and/or mitigation requirements.

All members agree that the Council needs to consider other mechanisms in addition to the FCL to protect the County’s tree and forest cover.

Accordingly, the Committee recommends that if the Council considers a separate “tree ordinance,” it should look carefully at how the tree ordinance will protect small forests and/or individual trees that are not protected because of the FCL’s 1-acre lot size threshold.

Executive recommendation:

The CE understands that Councilmember Elrich's intent is to increase the area of a tract of land to 40,000 sq. ft. as in current FCL and Bill 37-07.

Issue 3	Current FCL	Bill 37-07	Elrich Amendments
Clarification of the FCL using a Level 1/2/3 Review framework	N/A	Creates a Level 1/2/3 review process, with each level requiring a different intensity of scrutiny and mitigation requirements. No major substantive change from current FCL.	Same as Bill 37-07

FCAC Comments: The Committee reached a consensus that clarification of the FCL is critical, and that the proposed Level 1/2/3 Review framework is a helpful way to approach the issue. The current law describes the exemption process and associated compliance requirements in a manner that is chronically unclear and confusing to the regulated public. The proposed three levels of review incorporate the existing process in a form that provides a tiered and orderly process that more clearly indicates the varying degrees of review and criteria which might apply to a given level of proposed disturbance. The Committee supports this proposed revision.

Executive recommendation:

The general concept of three levels of review is acceptable. Technical concerns exist about the proposed language being complete and accurate. Some logical errors may exist in the language that may result in unintended outcomes. Therefore, the CE would like to review final language.

Issue 4	Current FCL	Bill 37-07	Elrich Amendments
Trigger for review by the Planning Department for recorded single lots	Activity requires Sediment Control Permit (disturbance equal to or greater than 5,000 sq. ft.) [22A-4]	Level 1 Review – Same as current FCL. [Circle 8 Lines 181-199] Level 2 Review – Any house, addition or accessory structure (that does not result in the cutting or clearing of more than 40,000 sq. ft. of forest).	Level 1 Review – Adds to Bill 37-07 by including cutting of any forest in environmental buffers, special protection, etc. [Circle 75 Lines 160-184] Level 2 Review – Any house, addition or accessory structure (that does not result in the cutting or clearing of

		[Circle 9 Lines 200-234] Level 3 – Agricultural and forestry activities.	more than 5,000 sq. ft. of forest) [Circle 76 Lines 185-227] Level 3 – Agricultural and forestry activities.
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FCAC Comments: The Committee has two major positions that are described below.

In support of Bill 37-07: The members of the Committee who support the Bill 37-07 alternative do so in preference over the current law and the Elrich Amendments. Clarification was the primary and original intent of the Planning Department when they first proposed to improve the manner in which the law and regulations were administered and implemented. These members support the revision of this law in intent but do not necessarily support any associated changes in thresholds and triggering criteria, including the Elrich Amendment.

In support of Elrich Amendments: The Elrich Amendments require Level 1 Review—which generally triggers reforestation requirements—for two additional situations: when forest is disturbed in environmental buffers and special protection areas; and when more than 5,000 square feet of forest is disturbed on lots greater than 40,000 square feet (current law starts at 40,000 sq. ft. of disturbance).

The reduction of forest areas from 45% to 28% from 1973 to 2000¹ is a rate of loss that is unacceptable. While implementation of the original FCL helped slow the rate of loss somewhat, the law still allows most landowners to clear nearly an acre before requiring mitigation to offset the loss. The members of the Committee who support the Elrich amendments do so because they support measures to provide important additional protections not currently in the law. The current law only requires a Level 2 Review—which has no reforestation or permanent protection requirements for forest clearing less than 40,000 sq. ft. (almost an acre).

These members feel strongly that 5,000 sq. ft. is an appropriate starting point for Level 1 Review and its associated mitigation requirements. Neither the existing FCL nor Bill 37-07 provides any additional significant mechanisms to slow the rate of forest loss. However they believe the Elrich amendments would make significant strides towards slowing forest loss by increasing the number of situations in which mitigation is required when forest is cleared. This will both help offset forest clearing and help deter forest loss, and thereby lessen the ecological and social impacts of forest loss and fragmentation.

In addition, this proposed change recognizes the need to protect forest in areas where streams, wetlands, steep slopes, and related natural features need special protection to protect the sensitive conditions of these natural features.

¹Montgomery County Forest Preservation Strategy, October 2000.
<http://www.montgomerycountymd.gov/content/dep/forest/strategy.pdf>

Available online at

Executive recommendation:

The CE recommends a compromise between Bill 37-07 and the Elrich Amendments. However, before commenting on any proposed change, the CE would like to review detailed information such as the number of lots involved and potential costs to owners.

Issue 5	Current FCL	Bill 37-07	Elrich Amendments
Land Use Types	Land Use Types are used to set forest conservation thresholds and afforestation requirements for different land uses and housing density. [22A-12 (a) Table]	Same as current FCL. [Circle 38 Line 957]	Adds two categories: Low Density Residential Area and Highway Rights-of-Way and School Sites. Removes one category: Institutional Development Area. [Circle 86 Line 417]

FCAC Comments: The Committee reached a consensus that a new “low density” land use category should be added and the existing “institutional” category should be removed, as proposed by the Elrich Amendments. The Committee also reached a consensus that, contrary to the Elrich amendments, school sites should not be treated as a separate category with lower requirements but should instead conform to the underlying zoning’s requirements. The Committee did not reach a consensus as to what the reforestation / afforestation thresholds should be for a new ‘low density’ category, but makes several suggestions below.

The Committee believes that removing the existing “institutional” category and not providing special treatment for school sites is desirable for two reasons. First, it is fundamentally fair. Schools and institutions should be subject to the same forest conservation rules as any other use in the County. Second, treating these uses equally with other uses sends the message that the County is willing to lead by example, and is not interested in providing itself exemptions from the rules that it requires private citizens to follow.

The Committee concluded that adding a low density category is desirable to two reasons. First, it allows the County to maximize forest conservation in the available space. Lots that would be categorized as ‘low density’ have more room to provide forest conservation, and the FCL should reflect that. Second, a low density category is justified by conformance with the zoning categories Montgomery County already uses.

Separating Low Density Residential areas from Medium Density Residential areas is more in keeping with existing zoning in Montgomery County. There is a substantial enough difference between the two to warrant such a separation. A Low Density Residential category generally encompasses the 2 residential ‘green wedges’ that buffer the Agricultural Reserve and protect either public water supplies (the Potomac River) or high quality streams (such as Paint Branch) from the more urban down county. Within these ‘green wedges’ some medium density development exists but since low density consists primarily of lots between 40,000 sq ft and 5 acre as well as Rural Cluster, there is a greater possibility for preserving and creating forest

where properties of a size more likely to be fall under the FCL exist. These properties are also more likely to be outside the sewer envelope and therefore on well and/or septic.

The FCAC discussed a range of possible conservation and afforestation thresholds for the Low Density category. These are provided below, along with the number of members who support each:

	Conservation Threshold	Afforestation Requirement	Number of Committee members who favor this option*
Option #1 – Elrich Low Density conservation threshold + Bill 37-07 Medium Density afforestation requirement	40%	25%	6
Option #2 – Elrich Low Density conservation thresholds	40%	20%	3
Option #3 – Other potential compromise position	Other	Other	5

**7 of the 20 Committee members did not register an opinion: two abstained, three did not vote.*

Note: Both the existing FCL and Bill 37-07 use a Medium Density category only. Existing conservation thresholds /afforestation requirements are 30% / 20%. Bill 37-07 would change those to 30% / 25%.

Executive recommendation:

Before commenting on any proposed change to the Land Use Types, the CE would like to review detailed information such as the number of lots involved and potential costs to owners.

Issue 6	Current FCL	Bill 37-07	Elrich Amendments
Conservation Thresholds	Mitigation is required for all forest removed from a tract of land greater than 40,000 sq. ft. For forest removed above the applicable threshold, mitigation at a certain rate is required. For additional removal of forest below the threshold, more extensive mitigation is required [22A-12(a) Table]	Increases conservation thresholds by 5% except in Agricultural and Resource Areas [Circle 38 Line 957]	Same as Bill 37-07. [Circle 86 Line 417]

FCAC Comments: The Committee has two major positions that are described below.

In support of Bill 37-07 and the Elrich Amendment: The members of the Committee who support Bill 37-07 and the Elrich Amendment believe that Montgomery County needs strong conservation thresholds. This is both because of the urgent need to slow forest loss, and because of the many benefits of trees in contributing to air and water quality, erosion and runoff control, and combating the negative effects of global warming.

Consequently, these members advise the County Council to increase the thresholds in the FCL amendments and even consider going beyond the proposed threshold increases to make the FCL a stronger tool for protecting forests and ameliorating climate change.

In addition, these members believe that the arguments made in support of the current thresholds (see below) are misleading.

- First, the analysis of data mentioned below regarding forest retention/replanting apply only for properties that are both covered by the FCL *and* trigger mitigation requirements. They do not include the tremendous amount of forest loss on properties that qualify for one of the myriad of existing FCL exemptions. Nor do they include forest loss on properties where large amounts of forest are being cleared (e.g. up to 40,000 sq ft—almost an acre), but no mitigation is required under the FCL. Even if these calculations are correct, this means we are still losing almost 10% of our total forest (even including mitigation) on properties where the FCL requires mitigation, in addition to unknown amounts of forest on all the properties where mitigation is not required or the law doesn't apply.
- Second, the analysis relies in large part on reforestation projects (over 20% of the forest identified as “retained or reforested” is immature plantings²). Newly replanted forests do not provide nearly the environmental benefits that existing forests do. For the first five years a newly planted forest buffer performs pollution control at a standard equal to that of grass.³ Offsite forest plantings may encourage the migration of forest up-county, and leave the area being developed without the many benefits of forest cover. On- or off-site, there is a significant risk that newly planted trees will never reach the status of a mature forest.⁴
- Finally, the FCL applies to an increasingly limited set of properties, meaning that there is a substantial amount of forest cover the law does not protect, so we must work to

² Of the forest identified as “retained or replanted” in the position statement below supporting the existing FCL thresholds, 21% is new plantings. Calculated based on data provided by Parks and Planning in its “15- Year Forest Conservation Activity in Montgomery County”, MNCPPC, July 2008. Calculation made by FCAC member and not verified by The Planning Department.

³ Todd, A. 2002. Nutrient Load Removal Efficiencies for Riparian Buffers and Wetland Restoration. USDA Forest Service, Northeastern Area, State and Private Forestry, Annapolis, MD.

⁴ *Id.*; “If you were able to convert unites of benefit whether numbers of nitrogen, or soil protection, or habitat, it would take a long time for the new forest to achieve a level of service provision equal to the mature forest...while also incurring the added risk that those services may not ever be matched (due to failure rates, etc.).” September 5, 2008 E-mail from Albert Todd, USDA Forest Service, Ecosystems Services, to Anne Merwin, FCAC Chair. In addition, the law and regulations state that a “successful” reforestation is 100 live trees per acre, but only define “live” as a tree with 2 normal size leaves.

maximize forest protection in the FCL in order to compensate for unregulated loss on exempt properties.

In support of the existing FCL: The members of the Committee who do not support the Bill 37-07 or the Elrich Amendments to change to the conservation thresholds instead prefer leaving the law in its current state. There are several reasons for this:

First, these members believe the current law is working. These members' analysis of data provided by the Planning Department for the 15 year period the law has been in effect indicates that the existing forest conservation thresholds are working to provide the maximum amount of forest retention while allowing the clearing of lower-priority forests. When these lower priority forests are cleared, mitigation results in the reforestation and enhancement of priority stream buffer areas (Planning Department data indicate that on sites that trigger reforestation requirements, 93% of existing forest cover has been retained or reforested over the 15-year period)⁵. The current thresholds strike this delicate balance while still allowing the property to be developed under the zoning it was granted and in accordance with the community's Master Plan vision.

Second, these members conclude that it is unfair to pass new thresholds that will negatively affect only a few projects. Approximately 28,100 residential units (5,508 single family detached homes, 4747 townhouses and 17,845 multifamily units) already approved but not yet built will not be subject to any changes to the Forest Conservation Law.⁶ Those few projects that will be affected by a new law with higher thresholds will be unfairly impacted by being the last ones to be developed.

Third, these members believe much of the development that will take place in this county in the coming decades will be infill and redevelopment.⁷ They believe that, in cases where mitigation is required by the FCL, these projects would provide a net gain in forest cover since they would be providing off site forest planting.

Fourth, these members argue that increasing the thresholds is without peer-reviewed scientific basis and could adversely impact the ability to achieve other desirable community policies. They further argue that there is no logical reason provided thus far that would warrant a radical change to a law that has been in place for 15 years and has proven that it is meeting its intended purpose.

Executive recommendation:

It is likely that the State Department of Natural Resources will change the conservation thresholds at the State level in the near future. The County's thresholds must be at least as strong as those established by the State. The CE recommends that the County retain its current

⁵ 93% statistic calculated based on data provided by Parks and Planning in its "15- Year Forest Conservation Activity in Montgomery County", MNCPPC, July 2008. Calculation made by FCAC member and not verified by The Planning Department.

⁶ "Pipeline of Approved Residential Development", MNCPPC, May 15, 2008; Supplemented with data provided by Mark Pfeifferle at the Planning Department.

⁷ "Analysis of the Supply and Demand for Housing, Montgomery County, Maryland, June 26, 2008, Pages 2-3

thresholds until the State thresholds have been revised. The County should review its thresholds again at that time.

Issues 7-9	Current FCL	Bill 37-07	Elrich Amendments
Reforestation Ratios: General	When forest is cleared above the threshold, the requirement is 1/4 acre established for every 1 acre removed. When forest is cleared below the threshold, the requirement is 2 acres established for every 1 acre removed. [22A-4 Definition of Forest Conservation Threshold, 22A-12(c)(1-2), and 22A-12(e)(2)(B)]	Same as current FCL. [Circles 39-40 Lines 989-998 and Circle 42 Line 1072]	When forest is cleared above the threshold, the requirement is 1/2 acre established for every 1 acre removed. When forest is cleared below the threshold, the requirement is the same as Bill 37-07 (2 acres established for every 1 acre removed). [Circle 72 Line 79, Circle 87 Lines 431-440, Circle 89 Line 468]
Reforestation Ratios: Mitigation Banking Ratio	When mitigation occurs off-site in existing forest, the requirement is 2 acres for every 1 acre of reforestation needed. [22A-4 Definition of Forest Conservation Threshold, 22A-12(c)(1-2), and 22A-12(e)(2)(B)]	Same as current FCL. [Circles 39-40 Lines 989-998 and Circle 42 Line 1072]	When mitigation occurs off-site in existing forest, the requirement is 4 acres for every 1 acre of reforestation needed. [Circle 72 Line 79, Circle 87 Lines 431-440, Circle 89 Line 468]
Fee-in-lieu Rate	The fee-in-lieu rate is set at \$0.90 per sq. ft. This is the estimated cost of purchasing plant material, installing plant material, mulching and watering, controlling invasive plant species, reducing damage from white-tailed deer browsing, surveying for survival, and replacing dead plants.	Does not address the issue b/c fee-in-lieu rate is not set in the FCL. Would not change the current rate of \$0.90 per sq. ft.	By a separate resolution, increases the fee-in-lieu to \$2.00 per sq. ft. and retains existing mechanism to increase the fee by the percentage amount of the annual average change in the Consumer Price Index. [Circle 99]

FCAC Comments: The Committee has combined these issues in our analysis because we believe they raise essentially the same policy issues, and are inextricably linked in that changing one ratio/rate requires changing them all in order to maintain parity as in the current protection/mitigation system. The Committee generally agrees that the current order of priorities (i.e. on-site preservation, then on-site forestation, then off-site reforestation, etc.) should be maintained. The Committee has two major positions on whether increasing the cost of reforestation options in order to incentivize on-site conservation of existing forest is desirable that are described below.

In support of Bill 37-07: As noted above, the reforestation ratios, mitigation banking ratio, and fee-in-lieu rate all work in tandem, and have a cumulative impact on any regulated property, and should be looked at in their totality. Also note that the reforestation thresholds and land use category issues discussed elsewhere in this report are also linked and should be considered in context with the issues discussed here. Changing any one of these mechanisms will have a singular impact on a regulated property. Changing all of them will have a cumulative impact that can only be seen when applying all of the proposed changes to real examples (see below).

The members of the Committee who support Bill 37-07 believe that the changes proposed in the Elrich amendments are overly burdensome on property owners and could cause an unreasonable increase in cost, a substantial loss in property value, and could have other unintended consequences, such as increased housing costs, reduced density at transportation nodes, increased costs for single lot owners, and a reduction in our ability to meet the housing demand in the county. Specifically:

- The members of the Committee who support this position believe that increasing the thresholds and ratios would result in excessive cost impact to property owners, large and small.
- Leaving intact the current mitigation banking ratios would maintain an adequate incentive to farmers in their ability to provide forest banking on their properties. In addition, the members who support this position believe the reforestation banks would run out too fast if the ratio is increased as proposed, and that raising the banking ratio from 2:1 to 4:1 will have the impact of devaluing forest banks. A 5 acre bank currently counts toward 2.5 acres of off-site forest mitigation. Under the proposed amendment, it would only count toward 1.25 acres of forest mitigation, making it less valuable in these members' opinion.
- These members believe that retaining the current the fee-in-lieu of \$.90 per square foot of mitigation is appropriate because this option only applies to a limited number of projects. Currently only projects that are under 5 acres in size or have a planting requirement of less than ½ acre can qualify to pay the fee. All other projects must plant the required mitigation. In addition, these members believe that keeping the fee at this level maintains proportionality with the actual cost of forest planting in Montgomery County which they believe is presently is in line with the \$.90 fee amount. Currently, MNCPPC has a five acre planting project that costs slightly more than \$100,000, which is approximately \$.45 per square foot for installation of plant material. According to MNCPPC staff, the actual cost would be closer to \$.90 if they had to acquire the land and pay for maintenance of the planting area, direct costs that they avoid since they own the land already and they

can use their staff for some maintenance. These members believe current fees also would avoid adding excessive cost for both large and small property owners who could be dealing with increased mitigation requirements due to other parts of Bill 37-07 and/or the Elrich Amendments.

The members of the Committee who support Bill 37-07 believe the seven examples that were provided previously to the Planning Board by staff regarding the comparative costs of the current FCL, Bill 37-07, and Elrich amendments⁸ are most illustrative of these issues. These examples in their entirety can be found in the September 17, 2007 Staff Report to the Council's T&E Committee. These members believe the examples indicate that the Elrich amendments would result in unreasonably large increases in replanting requirements and fee-in-lieu costs, in addition to other related costs like loss of lots. In the appendix of this report is a summary of the seven projects with added considerations prepared by the members of the Committee who support this position.

In support of Elrich Amendments: In general, the members of the Committee who support the Elrich amendments do so because they believe that Montgomery County should create stronger incentives to maximize on-site forest retention during the development/redevelopment process. While they realize that the FCL is not (nor should it be) the only tool the County can use for tree protection, it is a critical tool and currently our best opportunity to save existing trees and forests in the face of ever-increasing threats from development.

Accordingly, these members' perspective on the topics of increasing reforestation ratios and fee-in-lieu charges is that increasing these is a market-driven, efficient way to (1) incentivize retention of existing on-site forests, (2) to better reflect the lesser environmental benefits provided by replanted forests, and (3) to maintain the benefits of forests on site rather than relocate them to areas where the need may be less. Existing forests provide significantly more value than replanted forests.⁹ Water quality and stream health are directly related to the total canopy cover of the watershed overall.¹⁰ Thus, while forested streamside areas provide a vital "last line of defense" for water quality, watersheds with more overall forest cover are healthier than those with lower overall forest cover.¹¹

Furthermore, these members believe increasing reforestation ratios is an excellent way to incentivize more valuable on-site conservation over easier (and currently cheaper) replanting. The Energy and Air Quality Advisory Committee concurs on this issue, stating "if the County is

⁸ Example Projects prepared by MNCPPC for the September 17, 2007 Staff Report.

⁹ "For the first five years a new forest buffer performs [pollution control] at a standard equal to that of grass." Todd 2002, *supra* note 2. "If you were able to convert unites of benefit whether numbers of nitrogen, or soil protection, or habitat, it would take a long time for the new forest to achieve a level of service provision equal to the mature forest... while also incurring the added risk that those services may not ever be matched (due to failure rates, etc.)." E-mail from Albert Todd, *supra* note 3.

¹⁰ For example, in the Mid-Atlantic, a watershed with 50% tree cover will have a stream health ranking of "excellent", while a watershed with only 30% tree cover will have a stream health ranking of "poor." Scott Goetz, et al. "IKONOS imagery for resource management: Tree cover, impervious surfaces, and riparian buffer analyses in the mid-Atlantic region." *Remote Sensing of Environment* 88 (2003): 195-208.

¹¹ *Id.* See also generally *Forests for the Bay*, Environmental Law Institute 2000; and *The State of Chesapeake Forests*, The Conservation Fund 2006.

serious about improving its local climate... then it must focus on maintaining as much existing forest as possible... Replanting is rarely successful, is very expensive, and uses many resources.”¹²

These members believe preserving existing forest can also provide financial benefits for developers and homeowners. Builders in Maryland noted a 10-15% premium for a lot with trees, and property values in California had a 17% increase in value for property with trees.¹³ Expensive stormwater management and erosion and sediment control requirements decrease as the amount of on-site forest preservation increases. In many neighborhoods without storm drains, forest and canopy cover are the only stormwater management.

In addition, there are practical problems with reforestation that argue in favor of strongly incentivizing retention of existing forest: (1) It is not easy to identify appropriate sites for reforestation; and (2) these members believe the County does not (and likely cannot) provide sufficient oversight and maintenance to ensure that reforestation plantings are successful and likely to grow into healthy forests. Additional challenges to reforested plantings maturing into healthy forests include deer browse and competition from invasive species.

Finally, with regards to the fee-in-lieu resolution in particular, raising the fee-in-lieu is a pragmatic recognition of how the economy has changed since the prior fee-in-lieu rate (of \$0.90 per sq. ft.) was set. Similarly, tying future increases in the fee-in-lieu to normal and expected continuing changes in the Consumer Price Index is a practical way to continue to recognize that economies change and to avoid unnecessary, repetitive legislation to keep the fee properly adjusted to current costs.

In addition, these members believe that it is misleading to suggest that MNCPPC planting costs (which fee-in-lieu covers) are cheaper than a raised fee would justify. These members believe that simply looking at direct spending by MNCPPC ignores the many other costs actually incurred as part of planting projects. While park staff can do some mowing in areas accessible to large mowers, in areas with limited access for large equipment MNCPPC contracts out mowing and herbicidal spraying. In addition, some invasive species control on planting sites is maintained by volunteers, whose time is not included in direct costs figures cited above. These members also believe that any land provided by MNCPPC for planting should be included in planting cost calculations.

Executive recommendation:

Reforestation ratios: The CE supports Bill 37-07.

The CE supports Bill 37-07 and does not support the proposed resolution to increase the fee-in-lieu rate.

¹² See Page 1 of the July 15-08 FCL commentary to the County Council of the Energy and Air Quality Advisory Committee. The full quotation reads: “An important consideration is that trees and forests are not “quick fixes”, and that it is far easier to lose forests than replace them. Experience with re-afforestation efforts in Montgomery County has not been positive. Therefore, if the County is serious about improving its local climate and decreasing its impact on climate change, then it must focus on maintaining as much existing forest as possible, and regaining segments of forest lost to this point. Replanting is rarely successful, is very expensive, and uses many resources. In addition, the benefits of trees and forests are difficult to overstate...”

¹³ Riparian Forest Buffer Panel Report: Technical Support Document, Chesapeake Bay Program, 1996.

Issue 10	Current FCL	Bill 37-07	Elrich Amendments
Preferred Sequence for Mitigation	Consistent with State FCA giving highest priority to enhancement of existing forest through on-site selective clearing, supplemental planting or both, then on-site reforestation or afforestation. [22A-12(e)(1)(A)]	Changes preference sequence to on-site reforestation or afforestation, then off-site reforestation or afforestation, followed by non-native and invasive management control with supplemental planting. [Circle 41 Line 1030]	Same as Bill 37-07

FCAC Comments: The Committee reached a consensus that enhancement of existing forests should remain a mitigation option, as it currently is in the existing FCL. We oppose the removal of forest enhancement as a mitigation option, as both Bill 37-07 and the Elrich Amendments propose to do. It is our understanding that the removal of this provision was not founded on any scientific or ecological basis, but rather as “code clean up” since the provision is currently rarely used. The Committee feels that instead of removing a potentially useful but rarely used mitigation option, the County should leave the option in the law and develop ways to encourage its use in appropriate cases.

Executive recommendation:

The CE does not support changing the order of the preferred sequence for mitigation. The existing language is preferred and is consistent with the State's FCA.

Issue 11	Current FCL	Bill 37-07	Elrich Amendments
Maintenance Period Following Planting	Following planting, 2 years of maintenance is required to ensure forest establishment, or sufficient numbers of thriving trees. [22A-12(h)]	Increases all maintenance periods to 5 years. [Circle 46 Line 1182]	Same as Bill 37-07. [Circle 89 Line 477]

FCAC Comments: The Committee has two major positions that are described below.

In support of Bill 37-07 and the Elrich Amendment: The members of the Committee who support increasing the current two-year maintenance and bonding period to five years see this as essential to strengthening our existing forestry law because it allows more time for new plantings to become established and functional forests. As noted above, successfully establishing new plantings is a challenge in any situation.

These members believe that failure rates for plantings are very high due to factors such as deer browse, competition from non-native species, droughty conditions, and poor or nonexistent maintenance. Current regulations defining what a “successful” planting is make actual growth into healthy, functioning forests far from a guarantee.¹⁴ In addition, the Planning Department can only extend the maintenance and management period if less than 50% of the plantings have survived (again noting that even plantings deemed to have successfully survived need only have two leaves).¹⁵ In all other instances the performance bond must be released. For example, if 51% of the trees survive and the applicant then does some last-minute planting to make up for some of the non-surviving trees, the Planning Department is obligated to released the performance bond without any more maintenance required, despite the history of high plant mortality.

The result has been unsuccessful efforts to replace lost forest cover with poorly established plantings. Therefore these members believe the extended bond and maintenance period is critical as a measure to ensure sufficient time and follow-through on planting maintenance requirements, and to increase the chances of newly planted trees’ becoming healthy and functioning forest.

In support of the existing FCL: The members of the Committee who oppose increasing the maintenance and bonding period from 2 to 5 years do so because they believe it is unnecessary and penalizes efforts to achieve successful forest plantings within the current 2 year time frame. These members believe that when installed and maintained properly the success of a planted forest can be determined within 2 growing seasons.¹⁶ In those instances where there is high plant mortality due to poor plant selection or management, the Planning Department already has the authority to hold bonds and extend the maintenance period indefinitely until forest plantings are acceptable. These members believe plant mortality can be addressed with greater success by changing regulations rather than changing law. For example, the regulations might require inspections and maintenance during the current 2 year time period. These members conclude that the effect would be to eliminate any ineffective maintenance practices during those 2 years and provide greater certainty that plantings will be acceptable at the end of the 2 year period. The regulations might require different thresholds for survivability and the use of best management practices. We believe that a regulatory approach would be more successful and less expensive. The cost of the proposed amendment must be noted. An increase in the maintenance period from 2 to 5 years is a time increase of 150%. These members believe it would require a substantial increase in bond premiums and in inspection costs that will add to the already burdensome cost of regulation borne by homeowners in Montgomery County and make housing in the county less affordable unnecessarily.

¹⁴ See *supra* note 3. The law and regulations state that a “successful” reforestation is 100 live trees per acre capable of reaching 2 inches DBH in 7 years, but only define “live” as a tree with 2 normal size leaves that has lost its cotyledons (essentially, pre-leaves). So a very small maple, for example 6 inches tall with 3 leaves, would likely be counted as successfully replanted. This is in no way a guarantee that the replanted trees will become dominant and form a mature forest, especially given the challenges of deer browse and invasive species.

¹⁵ Section 108.E.(3) footnote (c).

¹⁶ The American Standard for Nursery Stock (ANSI Z60.1 – 2004) recognizes two (2) growing seasons as the timeframe – with appropriate maintenance, etc – that a transplanted tree can be successfully reestablished.

Executive recommendation:

The CE supports Bill 37-07 and the Elrich Amendments. The associated regulations should be amended to require self-regulated routine maintenance, documentation of maintenance, and growth and survival data on mitigation sites.

Issue 12	Current FCL	Bill 37-07	Elrich Amendments
County Arborist roles and responsibilities	Provides for a limited role of the County Arborist / DEP in application and review of FCL	Deletes County Arborist section from the FCL, Would not change current relationship between DEP and Planning Department	Generally gives the County Arborist and DEP more oversight over application of the FCL

FCAC Comments: The Committee reached consensus that it would be helpful to provide DEP with additional oversight of the FCL, but also agreed that a time limit should be established for a DEP review so that this additional agency involvement does not present a barrier to progress on project approvals.

Overall, the Committee is in agreement that there must be better coordination among DEP and the Planning Department on the Forest Conservation Law. The County Arborist, a position created by the FCL, is located within DEP and DEP is responsible for forest conservation in the county. However, the Planning Department is currently given a larger role in implementation of the FCL. Additional oversight by DEP and the County Arborist would enhance implementation of the FCL and give the public more confidence that forest conservation and the environment are considered when development projects are under review. However, an appropriate time limit (perhaps 30 days) should be established to prevent this additional oversight from creating unnecessary delays in the development review process. While the Committee does not take a position on specific duties of the County Arborist, we see a need for clarification of the title "County Arborist" to "Forest Conservation Coordinator." The Committee is also in agreement that the County Council needs to think through the mechanics carefully before finalizing legislation redefining the role of the County Arborist, and that additional staffing requirement at DEP should also be taken into consideration.

Executive recommendation:

The CE recommends the following:

- The mandates for the County Arborist on *Circle 60 Lines 1543 and 1549* should not be removed;
- Section 22A-30 should be removed;
- The position title should change to Forest Conservation Coordinator; and
- The position should be defined in Section 22A-3 as similar to other positions referenced in the FCL.

Issue 13	Current FCL	Bill 37-07	Elrich Amendments
Champion Trees: List	The definition of "champion tree" remains dependent on a list of trees maintained by the Montgomery County Forest Conservancy District Board – a voluntary program within a voluntary board. <i>[Expedited Bill 45-06 Line 5]</i>	Same as current FCL. <i>[Circle 3 Line 44]</i>	Cites the list developed by the Forestry Board but requires that the County Arborist maintain the list. <i>[Circle 70 Line 32]</i>

FCAC Comments: The Committee reached a consensus that it would be helpful to provide better public information regarding the Forest Conservancy District Board's (Forestry Board) Champion Tree Register. In order that the public have greater access to the information contained in the register, which is currently only published every two years, the Committee agreed that the register be duplicated in a database and the database kept current by the County Arborist.

Executive recommendation:

The CE supports the Elrich Amendments.

Issue 14	Current FCL	Bill 37-07	Elrich Amendments
Champion Trees: Definition	The definition of "champion tree" includes non-native invasive tree species. <i>[Expedited Bill 45-06 Line 5]</i>	Modifies existing definition to one that would be approved by DNR. <i>[Circle 3 Line 44]</i>	Same as current FCL. <i>[Circle 70 Line 32]</i>

FCAC Comments: The Committee reached a consensus, contrary to the existing FCL, Bill 37-07 and the proposed Elrich Amendments, that non-native invasive tree species should not be protected as Champion Trees. We reached this conclusion for several reasons. Non-native invasive plants grow and spread quickly to cover large areas. They are growing in an environment in which they did not evolve so they are not subject to the many various natural controls present in their native environment such as pathogens, herbivores, or parasites. Such natural controls would limit their growth and spread in their natural environment. Non-native invasive plants often out-compete the native plants for water, light and nutrients in an ecosystem, crowding them out until they are at best a minority component of the ecosystem. They can disturb relationships between native insects and native plant species such as seed dispersal and pollination. They can hybridize native plant species. Non-native invasive plant species can

inflict environmental, cultural, ecological, and economic damage and should not be protected under the Forest Conservation Law.¹⁷

Executive recommendation:

The CE recommends changing the definition to exclude non-native invasive tree species.

Issue 15	Current FCL	Bill 37-07	Elrich Amendments
Priority areas	References "priority forests" and "priority planting areas," placing higher intrinsic value on them. [22A-11(a)(2)(B), 22A-12(b)(2), 22A-12(e)(3), 22A-12(g)(2)(C-E), 22A-13(e), 22A-27(a)]	Removes several but not all references to priority areas. [Circle 31 Line 794, Circle 39 Line 978, Circle 43 Line 1080, Circle 49 Line 1258, Circle 61 Line 1573]	Same as Bill 37-07.

FCAC Comments: The Committee reached a consensus in support of the Bill 37-07/Elrich Amendment proposal to remove some, if not all, references to "priority areas" from the code, and instead place the "priority area" provisions in the FCL regulations. We believe this is a logical change and will provide the flexibility needed to best implement this part of the law.

Executive recommendation:

The CE recommends removing all language regarding "priority forests" and "priority planting areas" from the FCL.

Issue 16	Current FCL	Bill 37-07	Elrich Amendments
Legal Standing to Residents	No provisions in current FCL	Same as current FCL.	Gives Montgomery County residents or organizations legal standing to appeal decisions based on materially false, misleading, inaccurate, or incomplete information. [Circle 93, Line 570]

FCAC Comments: While members of the Committee disagreed over the desirability of providing legal standing to Montgomery County residents, the Committee ultimately decided it did not feel well-enough informed on the legal ramifications of this provision to take a formal position. Since this provision raises a variety of important legal issues, we encourage the County

¹⁷ Source: Non-native Invasive Plants. Carole Bergmann. Retrieved from <http://www.montgomerycountymd.gov/content/dep/invasives/invaders.pdf> on July 23, 2008.

Council to carefully examine those legal issues and retain experienced legal counsel to provide advice. In addition, we believe the County Council should take into account the following issues and questions as part of its deliberations:

- Are there other local, state, or national jurisdictions that have granted similar citizen standing for this type of issue?
- Does the proposed citizen standing conflict with state law?
- Some Committee members are concerned that citizen standing will encourage frivolous law suits. Consequently, the Committee recommends that if citizen standing is granted, the Counsel consider including the following to limit the potential for frivolous lawsuits:
 - Penalty provisions for suits that are determined to be frivolous by the court (e.g. complainant must pay defendant's legal costs)
 - Provision placing a maximum time limit on when complaints may be filed.
 - Any complainant must have their claims substantiated by a qualified professional in order for the complaint to be valid.
- Is there potential for the standing provision to be used negatively in disagreements between neighbors?

Executive recommendation:

The CE supports Bill 37-07.

Issue 17	Current FCL	Bill 37-07	Elrich Amendments
Advanced Notice	No provisions in current FCL	Same as current FCL	Requires advanced notice in writing, at least 10 days prior to any forest cutting, clearing, or grading activity to the Planning Director and residents of adjoining properties. [Circle 92, Line 545]

FCAC Comments: The Committee reached a consensus that a notice requirement is desirable and would benefit both the notice-giver and the notice-recipient(s). However, we feel that the details of how notice is provided deserve additional consideration by the County Council. Accordingly, we urge the County Council to consider the following issues:

- The success and practicality of the two available notice methods—posting vs. individual written notice—depend on the particular situation. In some situations posting is more effective and efficient, and in other cases individual written notice (as provided for in the Elrich amendments) is more desirable. Some Committee members felt that providing an “either/or” option for notification would allow the landowner to choose the most effective notice method for their particular case.
- The County Council should include a time window to ensure that notice is not provided too far in advance of or too close to the time of the proposed cutting, clearing, or grading— e.g. no more than 60 days and no less than 10 days prior to the activity. The Elrich amendments only include a minimum advance notice timeline, leaving open the

possibility that notice could be provided years in advance of the actual clearing. The Committee's proposed change would help avoid multi-year intervals between approval and actual start of site work.

- If posting is required, the County Council should clarify who would determine size and specs for the required signs.
- If individual written notice is required, the County Council should ensure direction is provided regarding how notice should be provided if the adjoining property is a multi-family dwelling.
- The County Council should also note that the proposed notice provision and the proposed standing provision are linked, in that failure to provide notice would trigger standing for the party to whom notice was not provided.

Executive recommendation:

The CE supports the Elrich Amendments but recommends limiting the requirement for advanced notification of activity to on-site posting in a similar manner to existing requirements.

Other Advisory Committee comments

The Forest Conservation Advisory Committee discussed but did not take a position on the following issues:

- **Issue 18 Afforestation requirements.** Bill 37-07 and the Elrich Amendments differ only slightly in their afforestation percentage requirements, with Elrich proposing 20% for medium density residential areas, and Bill 37-07 proposing 25% for this same category. It is our understanding that the difference resulted from efforts to be consistent with other proposed changes, rather than a substantive disagreement about this particular category. We expect that the Planning Department and Mr. Elrich will be able to resolve this difference, and are therefore not taking a position.

Executive recommendation:

The CE does not support increasing the afforestation requirements.

- **Issue 19 Agricultural activities.** Concern was expressed about agricultural activities falling under a Level 3 review, as opposed to enjoying the exemption status granted under the current FCL and consistent with state law, which does not apply the FCL to agricultural activities. It is our understanding that this concern is being resolved and that the agricultural community is satisfied with the way it is being addressed. We presume that the agricultural community and County Council will be able to work out a mutually agreeable solution, and are therefore not taking a position on the agricultural issues in the bill. Should this change, the Committee would be willing to provide additional input on the issue.

Executive recommendation:

No specific comment.

This issue was discussed in the September 8 Council staff cover memo on pages 16-17.

- **Issue 20 Creation of a Champion Tree “Class.”** During its discussions of this issue, FCAC members raised several questions regarding the practical effects of the Elrich Amendments’ definition of a champion tree “class.” As a result, Mr. Elrich has decided to re-evaluate his proposed definition in order to address the Committee’s concerns. Accordingly, the Committee is not taking a position on the originally-proposed definition.

Executive recommendation:

The CE supports the Elrich Amendments but recommends changing the parameter of 10% to the champion and next 5 largest known trees of each non-native invasive species.

Other Issues not analyzed by Advisory Committee

- **Issue 21 Roles of Planning Board, DEP, DPS** In an earlier worksession, Councilmember Leventhal questioned whether some or all administration of the forest conservation law should be transferred from the Planning Board to the County Department of Environmental Protection (DEP). In the memo with his recommendations sent on September 18 (see ©348), County Executive Leggett recommended “transferring responsibility for implementing components of the Forest Conservation Law that relate to previously recorded lots” from the Planning Board to the Department of Permitting Services (DPS). “More specifically, I recommend that DPS be given responsibility for implementing the Forest Conservation Law as it applies to properties that go through the development review process. This change would assist in streamlining the permitting process for most single-lot property owners that are not subject to development review.”

Neither the Planning Board nor any stakeholders (builder, environmental, civic organizations) have had time to comment on the Executive’s proposal. More broadly, drafters of the proposed tree protection law which is likely to follow this Bill will need to decide which County agency or Department would enforce that law; since its application may be tied, at least in some cases, to building permit approval, DPS would be a likely candidate.

The state forest conservation law (see Maryland Code, Natural Resources Art. §5-1603 on ©106-107) refers to a “unit of local government having planning and zoning authority”, but Council staff interprets that phrase as a reference to the County itself rather than any particular part of County government. Elsewhere, the state law uses the term “local authority”, which it does not further define. The Regional District Act (Maryland Code, Art. 28, §7-111(h)) expressly authorizes the County Planning Board, “to the extent authorized by county law, ordinance, or resolution,” to “administer and enforce any adopted ... forest conservation program”. Council staff

does not interpret this as requiring the County to delegate this function to the Planning Board; rather, it simply authorizes the Board, as a creature of state law, to carry out this task if assigned.

The bottom line, in Council staff's view, is that the County has complete discretion to assign all or any element of the administration of the forest conservation law to any County agency or Department. The staff memo for the next worksession will review the policy considerations and other factors which may be relevant to that decision.

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Forest Conservation Law Amendments sponsored by Councilmember Elrich February 2008

On Tuesday, December 11, 2007 amendments to Chapter 22A - Forest Conservation law (FCL) by MNCPPC and Councilmember Elrich were introduced. The MNCPPC and the Elrich amendments will travel together through the legislative process.

The existing FCL is inadequate in many ways:

- It does not conserve an adequate amount of forest.
- It is poorly written and very difficult to understand.

The MNCPPC amendments would significantly improve the FCL. MNCPPC:

- Re-wrote substantial parts of the FCL to make it understandable.
- They removed obsolete language.
- Developed the model for the Level 1, 2, and 3 Review that helps citizens to determine if the FCL applies to them.
- Clarified the requirements for each level of Review.
- Generally raised conservation and afforestation thresholds 5%.
- Increased the maintenance period for reforestation from 2 to 5 years.
- Extended the Declaration of Intent not to do any more activity in the area which affects the forest to 7 years.

The Elrich office and Park and Planning collaborated on many of the changes to the FCL.

However, Councilmember Elrich felt the law needed to be strengthened further. Councilmember Elrich continued to amend the MNCPPC draft bill to maximize forest retention and get closer to the goal of no forest net loss. Below is a brief synopsis of some of the proposed amendments that will help reach this goal:

Forest conservation and afforestation thresholds are based on land use categories. Councilmember Elrich proposes raising the threshold percentages for most sites and changing the definition of the residential land use categories. Changing the definitions of medium and high density residential areas more accurately reflects the County's land use. As a result, some zoning codes shift into different land use categories. This allows for more possible forest retention or afforestation on-site on appropriate tracts of land.

1. Added a Low Density Residential Area land use type and changed the density ranges in the Medium Density Residential Area and High Density Residential Area categories to more accurately reflect the County's land use.

In the existing law:

There is no Low Density Residential category.

The Medium Density Residential category is currently defined as a density greater than 1 house per 5 acres and less than or equal to one house per 40,000 sq. ft (an acre = 43,560 sq. ft) Generally included zones: RE-1, RE-2, 5 and 25 acre lot zones if lots are clustered.

The High Density Residential category is currently defined as a density greater than one house per 40,000 sq. ft. Generally includes Montgomery County zones: R-200, RMH-200, R-150, R-90, R-60, R-40, R-20, R-10, RT zones and RMX. Generally lots less than 1 acre, townhouses and multifamily dwelling units.

Elrich amendments:

Elrich amendments add a Low Density Residential Area defined as an area zoned for a density greater than one dwelling unit per five acres and less than or equal to one dwelling unit per acre. Generally includes Montgomery County zones: RC, RE-2, RE-1. Generally 5, 2, and 1 acre lots.

Elrich Medium Density Residential - an area zoned for a density greater than one dwelling unit per acre and less than or equal to 10 dwelling units per acre. Includes Montgomery County zones: RT-10, RT-8, RT-6, R-30, R-40, R-60, R-90, R-150, R-200. Generally lots less than a half acre and some townhouse configurations.

Elrich High Density Residential - an area zoned for densities greater than 10 dwelling units per acre. Generally includes Montgomery County zones: RT-12.5, RT-15, RT-18, RT-20, RT-38, R-30, R-20, RH, RMX. Generally townhouses and multifamily dwelling units.

2. Eliminate the government and institution category which generally had the lowest conservation and afforestation threshold requirements. The Elrich amendments does make an exception for highway right-of-ways and MCPS school sites. Those facilities have a 1:1 replacement requirement.
3. Amend the forest conservation threshold for net tracts to have reforestation requirements of a ratio of ½ acre planted for every one acre removed above the threshold and retain the ratio of 2 acres planted for every one acre removed below the conservation threshold. Currently only ¼ acre needs to be replanted for each acre removed above the conservation threshold.
4. If off-site forest conservation mitigation bank credits are purchased, increase the requirement from 2 acres to 4 acres for every acre of replanting.
5. The Elrich amendments as introduced, proposed reducing the lot size to be considered for the FCL from 40,000 sq. ft. to 10,000 sq. ft. The rationale: To be consistent with the state law definition of a forest (10,000 sq. ft.), the Elrich amendments define a 10,000 sq/ft tract of land as subject to the FCL. Current law looks at tracts of land 40,000 sq. ft. or greater.

Marc has changed his position on this point. He will recommend that the lot size stay at 40,000 sq. ft. but the FCL is triggered if more than 5,000 sq. ft. of forest is to be cleared (point 6 below)

6. Change the level of forest disturbance necessary to trigger the FCL from 40,000 sq. ft. to 5,000 sq. ft.

7. Increase the maintenance period of reforestation from 2 to 5 years to improve tree survival success.

8. Provide a role of for a County Forest Conservation Coordinator, appointed by the Director of the Department of Environmental Protection and functions in DEP. The concurrence of CFCC and the Planning Director would be necessary for several requirements under the FCL. This provides checks and balances for certain types of decisions to be made under the FCL. Also, the CFCC would have functions related to resource management and protection of forest and trees in the County

8. Give citizens legal standing to appeal decisions based on false and misleading plans to the Circuit Court.

9. Require that neighbors be given advance notice of pending forest clearings covered by the FCL.

Councilmember Elrich believes that the end result of these amendments will be:

- Preserving a greater amount of forest in Montgomery County
- Increasing forest conservation on-site
- Keeping down-county forest in place by discouraging the use of up-county forest mitigation banks
- Conserving forests to improve water and air quality
- Maximizing Montgomery County's contribution to restore the Chesapeake Bay by retaining and expanding forests in the Chesapeake Bay watershed.
- More successful reforestations
- The County will lead the forest preservation effort by example by eliminating minimal requirements for institutions
- Providing more protection of our forests by vesting every citizen with legal standing
- Requiring advance notice of pending forest clearings

Forest Conservation Advisory Committee
Comments on Bill 37-07: Forest Conservation Law
September 15, 2008

Introduction:

The Forest Conservation Advisory Committee (FCAC) was convened on April 3, 2008 and a Chair was appointed on June 24, 2008. At the time the FCAC was convened, Bill 37-07 and the Elrich Amendments had already been introduced and debated in the County Council for a few months.

In order that the FCAC's advice be as focused and relevant as possible, these comments focus solely on major provisions of Bill 37-07 and the Elrich Amendments and the areas where these proposed amendments differ. The FCAC based its discussions around the comparison chart found in the March 2008 T&E Committee packet, beginning on page circle 300.

For provisions where FCAC members reached consensus, we have noted that consensus. Consensus did not require approval of every Committee member, but rather the overwhelming majority of the members present at the meeting where the issue was discussed. For provisions where FCAC members could not reach consensus, we have explained the different positions.

A final vote provided FCAC members an opportunity to express their individual opinions on each of the positions described in this report. The vote was done via an anonymous online survey, the results of which are provided beginning on page 22 of this report.

We hope the Council will find these comments useful in its ongoing debate of Bill 37-07, the Elrich Amendments, and the existing Forest Conservation Law.

Respectfully,
Members of the Forest Conservation Advisory Committee

FCAC Comments on the Major Provisions of Bill 37-07 and the Elrich Amendments

Issue	Current FCL	Bill 37-07	Elrich Amendments
Definition of Forest	As currently written, consideration is given only to forested area occurring on individual property, even if forested area is part of a larger forest on adjacent properties. However, current implementation considers forested area beyond lot. [22A-3]	Same as written in current FCL. [Circle 4 Line 65]	Requires consideration of forest area "regardless of political or property boundaries." [Circle 71 Lines 64 and 67]

FCAC Comments: The Committee has two major positions that are described below.

In support of Bill 37-07: The members of the Committee who support Bill 37-07 do so out of concerns about the potential for deleterious effects on landowners if property lines are NOT considered when defining a forest. These members are concerned that FCL requirements for a given property owner could be unfairly affected by earlier forest-clearing activities of other nearby property owners. In addition, these members believe that the current law's silence on the issue of property lines allows discretion to be used by the Planning Department when applying the law.

In support of the Elrich Amendments: The Elrich amendments would mandate that forest areas be defined regardless of property lines. The members of the Committee who support the Elrich amendments do so out of concerns that if a grouping of trees is indeed a forest, it should be protected as such regardless of how many properties it spans or how much of it exists on any one property. If the law remains silent on the issue as Bill 37-07 proposes, the door would remain open for allowing property lines to dictate whether a forest is a forest. If property lines were used, it would exacerbate the effects of parcelization, a major threat to Montgomery County's forests, and cause many fewer forests to be considered under the law. It is our understanding that the Planning Department's current practice is to evaluate forests without regard to property boundaries. The Elrich amendments would simply codify this current practice, and close the door to using property lines as an arbitrary determinant of our forests.

Issue	Current FCL	Bill 37-07	Elrich Amendments
Trigger for application of FCL	Tract of land must be 40,000 sq. ft. or greater for FCL to apply (except when activity would result in disturbance to champion tree, or forest in environmental buffer or special protection area). [22A-4(b), 22A-5(a)(2)(A), 22A-5(n)(2)(A), 22A-5(p)(2)]	Same as current FCL. [Circle 9 Lines 187, 194, 198, 202, 206, 221]	Mr. Elrich has indicated that he plans to alter his amendments on this issue so that they would be the same as current FCL.

FCAC Comments: The Committee understands that although Mr. Elrich originally proposed lowering the lot size threshold from 40,000 square feet (approximately 1 acre) to 10,000 square feet (approximately ¼ acre), he has since withdrawn this proposal. Consequently, neither Bill 37-07 nor the Elrich Amendments propose that lots less than 40,000 square feet be regulated under the FCL (with a few exceptions already provided for in the law).

The Committee reached consensus that retaining a 40,000 sq. ft. lot size trigger is acceptable; however members were split regarding their reasons for reaching this consensus.

Some members of the Committee actively support 40,000 sq. ft. as a reasonable threshold because they believe that this threshold will allow owners of smaller parcels to develop their properties without running into complicated FCL requirements, and that it will prevent the Planning Department staff from being overwhelmed with new applications. These members believe the FCL is not an appropriate law to address parcels smaller than 40,000 sq. ft.

Other members of the Committee are willing to accept a 40,000 sq. ft. threshold in recognition of the Planning Department staffing issues it raises, but emphasize that this lot size threshold leaves most trees and forests located on lots less than one acre without any protection under the law (although even some properties above 40,000 sq. ft. are exempt, and even forests on properties that do fall under the FCL do not all receive permanent protection via a conservation easement). These members believe that in conjunction with the variety of other exemptions available under the FCL, this regulatory “gap” leaves a significant portion of the County’s tree and forest cover without protection and/or mitigation requirements.

All members agree that the Council needs to consider other mechanisms in addition to the FCL to protect the County's tree and forest cover.

Accordingly, the Committee recommends that if the Council considers a separate "tree ordinance," it should look carefully at how the tree ordinance will protect small forests and/or individual trees that are not protected because of the FCL's 1-acre lot size threshold.

Issue	Current FCL	Bill 37-07	Elrich Amendments
Clarification of the FCL using a Level 1/2/3 Review framework	N/A	Creates a Level 1/2/3 review process, with each level requiring a different intensity of scrutiny and mitigation requirements. No major substantive change from current FCL.	Same as Bill 37-07

FCAC Comments: The Committee reached a consensus that clarification of the FCL is critical, and that the proposed Level 1/2/3 Review framework is a helpful way to approach the issue. The current law describes the exemption process and associated compliance requirements in a manner that is chronically unclear and confusing to the regulated public. The proposed three levels of review incorporate the existing process in a form that provides a tiered and orderly process that more clearly indicates the varying degrees of review and criteria which might apply to a given level of proposed disturbance. The Committee supports this proposed revision.

Issue	Current FCL	Bill 37-07	Elrich Amendments
Trigger for review by the Planning Department for recorded single lots	Activity requires Sediment Control Permit (disturbance equal to or greater than 5,000 sq. ft.) [22A-4]	Level 1 Review – Same as current FCL. [Circle 8 Lines 181-199] Level 2 Review – Any house, addition or accessory	Level 1 Review – Adds to Bill 37-07 by including cutting of any forest in environmental buffers, special protection, etc. [Circle 75 Lines 160-184]

		structure (that does not result in the cutting or clearing of more than 40,000 sq. ft. of forest). [Circle 9 Lines 200-234]	Level 2 Review – Any house, addition or accessory structure (that does not result in the cutting or clearing of more than 5,000 sq. ft. of forest) [Circle 76 Lines 185-227]
		Level 3 – Agricultural and forestry activities.	Level 3 – Agricultural and forestry activities.

FCAC Comments: The Committee has two major positions that are described below.

In support of Bill 37-07: The members of the Committee who support the Bill 37-07 alternative do so in preference over the current law and the Elrich Amendments. Clarification was the primary and original intent of the Planning Department when they first proposed to improve the manner in which the law and regulations were administered and implemented. These members support the revision of this law in intent but do not necessarily support any associated changes in thresholds and triggering criteria, including the Elrich Amendment.

In support of Elrich Amendments^{*}: The Elrich Amendments require Level 1 Review—which generally triggers reforestation requirements—for two additional situations: when forest is disturbed in environmental buffers and special protection areas; and when more than 5,000 square feet of forest is disturbed on lots greater than 40,000 square feet (current law starts at 40,000 sq. ft. of disturbance).

The reduction of forest areas from 45% to 28% from 1973 to 2000¹ is a rate of loss that is unacceptable. While implementation of the original FCL helped slow the rate of loss somewhat, the law still allows most landowners to clear nearly an acre before requiring mitigation to offset the loss. The members of the Committee who support the Elrich amendments do so because they support measures to provide important additional protections not currently in the law. The current law only requires a Level 2 Review—which has no reforestation or permanent protection requirements for forest clearing less than 40,000 sq. ft. (almost an acre).

¹ Montgomery County Forest Preservation Strategy, October 2000. Available online at <http://www.montgomerycountymd.gov/content/dep/forest/strategy.pdf>

These members feel strongly that 5,000 sq. ft. is an appropriate starting point for Level 1 Review and its associated mitigation requirements. Neither the existing FCL nor Bill 37-07 provides any additional significant mechanisms to slow the rate of forest loss. However they believe the Elrich amendments would make significant strides towards slowing forest loss by increasing the number of situations in which mitigation is required when forest is cleared. This will both help offset forest clearing and help deter forest loss, and thereby lessen the ecological and social impacts of forest loss and fragmentation.

In addition, this proposed change recognizes the need to protect forest in areas where streams, wetlands, steep slopes, and related natural features need special protection to protect the sensitive conditions of these natural features.

Issue	Current FCL	Bill 37-07	Elrich Amendments
Land Use Types	Land Use Types are used to set forest conservation thresholds and afforestation requirements for different land uses and housing density. [22A-12 (a) Table]	Same as current FCL. [Circle 38 Line 957]	Adds two categories: Low Density Residential Area and Highway Rights-of-Way and School Sites. Removes one category: Institutional Development Area. [Circle 86 Line 417]

FCAC Comments: The Committee reached a consensus that a new “low density” land use category should be added and the existing “institutional” category should be removed, as proposed by the Elrich Amendments. The Committee also reached a consensus that, contrary to the Elrich amendments, school sites should not be treated as a separate category with lower requirements but should instead conform to the underlying zoning’s requirements. The Committee did not reach a consensus as to what the reforestation / afforestation thresholds should be for a new ‘low density’ category, but makes several suggestions below.

The Committee believes that removing the existing “institutional” category and not providing special treatment for school sites is desirable for two reasons. First, it is fundamentally fair. Schools and institutions should be subject to the same forest conservation rules as any other use in the County. Second, treating these uses equally with other uses sends the message that the County is willing to lead by example, and is

not interested in providing itself exemptions from the rules that it requires private citizens to follow.

The Committee concluded that adding a low density category is desirable to two reasons. First, it allows the County to maximize forest conservation in the available space. Lots that would be categorized as 'low density' have more room to provide forest conservation, and the FCL should reflect that. Second, a low density category is justified by conformance with the zoning categories Montgomery County already uses.

Separating Low Density Residential areas from Medium Density Residential areas is more in keeping with existing zoning in Montgomery County. There is a substantial enough difference between the two to warrant such a separation. A Low Density Residential category generally encompasses the 2 residential 'green wedges' that buffer the Agricultural Reserve and protect either public water supplies (the Potomac River) or high quality streams (such as Paint Branch) from the more urban down county. Within these 'green wedges' some medium density development exists but since low density consists primarily of lots between 40,000 sq ft and 5 acre as well as Rural Cluster, there is a greater possibility for preserving and creating forest where properties of a size more likely to be fall under the FCL exist. These properties are also more likely to be outside the sewer envelope and therefore on well and/or septic.

The FCAC discussed a range of possible conservation and afforestation thresholds for the Low Density category. These are provided below, along with the number of members who support each:

	Conservation Threshold	Afforestation Requirement	Number of Committee members who favor this option*
Option #1 – Elrich Low Density conservation threshold + Bill 37-07 Medium Density afforestation requirement	40%	25%	6
Option #2 – Elrich Low Density conservation thresholds	40%	20%	3
Option #3 – Other potential compromise position	Other	Other	5

**7 of the 20 Committee members did not register an opinion: two abstained, three did not vote.*

Note: Both the existing FCL and Bill 37-07 use a Medium Density category only. Existing conservation thresholds /afforestation requirements are 30% / 20%. Bill 37-07 would change those to 30% / 25%.

Issue	Current FCL	Bill 37-07	Elrich Amendments
Conservation Thresholds	Mitigation is required for all forest removed from a tract of land greater than 40,000 sq. ft. For forest removed above the applicable threshold, mitigation at a certain rate is required. For additional removal of forest below the threshold, more extensive mitigation is required. [22A-12(a) Table]	Increases conservation thresholds by 5% except in Agricultural and Resource Areas. [Circle 38 Line 957]	Same as Bill 37-07. [Circle 86 Line 417]

FCAC Comments: The Committee has two major positions that are described below.

In support of Bill 37-07 and the Elrich Amendment[†]: The members of the Committee who support Bill 37-07 and the Elrich Amendment believe that Montgomery County needs strong conservation thresholds. This is both because of the urgent need to slow forest loss, and because of the many benefits of trees in contributing to air and water quality, erosion and runoff control, and combating the negative effects of global warming.

Consequently, these members advise the County Council to increase the thresholds in the FCL amendments and even consider going beyond the proposed threshold increases to make the FCL a stronger tool for protecting forests and ameliorating climate change.

In addition, these members believe that the arguments made in support of the current thresholds (see below) are misleading.

- First, the analysis of data mentioned below regarding forest retention/replanting apply only for properties that are both covered by the FCL *and* trigger mitigation requirements. They do not include the tremendous amount of forest loss on properties that qualify for one of the myriad of existing FCL exemptions. Nor do they include forest loss on properties where large amounts of forest are being cleared (e.g. up to 40,000 sq ft—almost an acre), but no mitigation is required under the FCL. Even if these calculations are correct, this means we are still losing almost 10% of our total forest (even including mitigation) on properties where the FCL requires mitigation, in addition to unknown amounts of forest on all the properties where mitigation is not required or the law doesn't apply.

- Second, the analysis relies in large part on reforestation projects (over 20% of the forest identified as “retained or reforested” is immature plantings²). Newly replanted forests do not provide nearly the environmental benefits that existing forests do. For the first five years a newly planted forest buffer performs pollution control at a standard equal to that of grass.³ Offsite forest plantings may encourage the migration of forest up-county, and leave the area being developed without the many benefits of forest cover. On- or off-site, there is a significant risk that newly planted trees will never reach the status of a mature forest.⁴
- Finally, the FCL applies to an increasingly limited set of properties, meaning that there is a substantial amount of forest cover the law does not protect, so we must work to maximize forest protection in the FCL in order to compensate for unregulated loss on exempt properties.

In support of the existing FCL[†]: The members of the Committee who do not support the Bill 37-07 or the Elrich Amendments to change to the conservation thresholds instead prefer leaving the law in its current state. There are several reasons for this:

First, these members believe the current law is working. These members’ analysis of data provided by the Planning Department for the 15 year period the law has been in effect indicates that the existing forest conservation thresholds are working to provide the maximum amount of forest retention while allowing the clearing of lower-priority forests. When these lower priority forests are cleared, mitigation results in the reforestation and enhancement of priority stream buffer areas (Planning Department data indicate that on sites that trigger reforestation requirements, 93% of existing forest cover has been retained or reforested over the 15-year period)⁵. The current thresholds strike this delicate balance while still allowing the property to be developed under the zoning it was granted and in accordance with the community’s Master Plan vision.

Second, these members conclude that it is unfair to pass new thresholds that will negatively affect only a few projects. Approximately 28,100 residential units (5,508 single family detached homes, 4747 townhouses and 17,845 multifamily units) already approved but not yet built will not be subject to any changes to the Forest Conservation

² Of the forest identified as “retained or replanted” in the position statement below supporting the existing FCL thresholds, 21% is new plantings. Calculated based on data provided by Parks and Planning in its “15- Year Forest Conservation Activity in Montgomery County”, MNCPPC, July 2008. Calculation made by FCAC member and not verified by The Planning Department.

³ Todd, A. 2002. Nutrient Load Removal Efficiencies for Riparian Buffers and Wetland Restoration. USDA Forest Service, Northeastern Area, State and Private Forestry, Annapolis, MD.

⁴ *Id.*; “If you were able to convert unites of benefit whether numbers of nitrogen, or soil protection, or habitat, it would take a long time for the new forest to achieve a level of service provision equal to the mature forest...while also incurring the added risk that those services may not ever be matched (due to failure rates, etc.).” September 5, 2008 E-mail from Albert Todd, USDA Forest Service, Ecosystems Services, to Anne Merwin, FCAC Chair. In addition, the law and regulations state that a “successful” reforestation is 100 live trees per acre, but only define “live” as a tree with 2 normal size leaves.

⁵ 93% statistic calculated based on data provided by Parks and Planning in its “15- Year Forest Conservation Activity in Montgomery County”, MNCPPC, July 2008. Calculation made by FCAC member and not verified by The Planning Department.

Law.⁶ Those few projects that will be affected by a new law with higher thresholds will be unfairly impacted by being the last ones to be developed.

Third, these members believe much of the development that will take place in this county in the coming decades will be infill and redevelopment.⁷ They believe that, in cases where mitigation is required by the FCL, these projects would provide a net gain in forest cover since they would be providing off site forest planting.

Fourth, these members argue that increasing the thresholds is without peer-reviewed scientific basis and could adversely impact the ability to achieve other desirable community policies. They further argue that there is no logical reason provided thus far that would warrant a radical change to a law that has been in place for 15 years and has proven that it is meeting its intended purpose.

Issue	Current FCL	Bill 37-07	Elrich Amendments
Reforestation Ratios: General	When forest is cleared above the threshold, the requirement is 1/4 acre established for every 1 acre removed. When forest is cleared below the threshold, the requirement is 2 acres established for every 1 acre removed. [22A-4 Definition of Forest Conservation Threshold, 22A-12(c)(1-2), and 22A-12(e)(2)(B)]	Same as current FCL. [Circles 39-40 Lines 989-998 and Circle 42 Line 1072]	When forest is cleared above the threshold, the requirement is 1/2 acre established for every 1 acre removed. When forest is cleared below the threshold, the requirement is the same as Bill 37-07 (2 acres established for every 1 acre removed). [Circle 72 Line 79, Circle 87 Lines 431-440, Circle 89 Line 468]
Reforestation Ratios: Mitigation Banking Ratio	When mitigation occurs off-site in existing forest, the requirement is 2 acres for every 1	Same as current FCL. [Circles 39-40 Lines 989-998 and Circle 42 Line	When mitigation occurs off-site in existing forest, the requirement is 4 acres for every 1

⁶ "Pipeline of Approved Residential Development", MNCPPC, May 15, 2008; Supplemented with data provided by Mark Pfefferle at the Planning Department.

⁷ "Analysis of the Supply and Demand for Housing, Montgomery County, Maryland, June 26, 2008, Pages 2-3

	acre of reforestation needed. [22A-4 Definition of Forest Conservation Threshold, 22A-12(c)(1-2), and 22A-12(e)(2)(B)]	1072]	acre of reforestation needed. [Circle 72 Line 79, Circle 87 Lines 431-440, Circle 89 Line 468]
Fee-in-lieu Rate	The fee-in-lieu rate is set at \$0.90 per sq. ft. This is the estimated cost of purchasing plant material, installing plant material, mulching and watering, controlling invasive plant species, reducing damage from white-tailed deer browsing, surveying for survival, and replacing dead plants.	Does not address the issue b/c fee-in-lieu rate is not set in the FCL. Would not change the current rate of \$0.90 per sq. ft.	By a separate resolution, increases the fee-in-lieu to \$2.00 per sq. ft. and retains existing mechanism to increase the fee by the percentage amount of the annual average change in the Consumer Price Index. [Circle 99]

FCAC Comments: The Committee has combined these issues in our analysis because we believe they raise essentially the same policy issues, and are inextricably linked in that changing one ratio/rate requires changing them all in order to maintain parity as in the current protection/mitigation system. The Committee generally agrees that the current order of priorities (i.e. on-site preservation, then on-site forestation, then off-site reforestation, etc.) should be maintained. The Committee has two major positions on whether increasing the cost of reforestation options in order to incentivize on-site conservation of existing forest is desirable that are described below.

In support of Bill 37-07⁸: As noted above, the reforestation ratios, mitigation banking ratio, and fee-in-lieu rate all work in tandem, and have a cumulative impact on any regulated property, and should be looked at in their totality. Also note that the reforestation thresholds and land use category issues discussed elsewhere in this report are also linked and should be considered in context with the issues discussed here. Changing any one of these mechanisms will have a singular impact on a regulated property. Changing all of them will have a cumulative impact that can only be seen when applying all of the proposed changes to real examples (see below).

The members of the Committee who support Bill 37-07 believe that the changes proposed in the Elrich amendments are overly burdensome on property owners and could cause an unreasonable increase in cost, a substantial loss in property value, and could have other unintended consequences, such as increased housing costs, reduced density at transportation nodes, increased costs for single lot owners, and a reduction in our ability to meet the housing demand in the county. Specifically:

- The members of the Committee who support this position believe that increasing the thresholds and ratios would result in excessive cost impact to property owners, large and small.
- Leaving intact the current mitigation banking ratios would maintain an adequate incentive to farmers in their ability to provide forest banking on their properties. In addition, the members who support this position believe the reforestation banks would run out too fast if the ratio is increased as proposed, and that raising the banking ratio from 2:1 to 4:1 will have the impact of devaluing forest banks. A 5 acre bank currently counts toward 2.5 acres of off-site forest mitigation. Under the proposed amendment, it would only count toward 1.25 acres of forest mitigation, making it less valuable in these members' opinion.
- These members believe that retaining the current the fee-in-lieu of \$.90 per square foot of mitigation is appropriate because this option only applies to a limited number of projects. Currently only projects that are under 5 acres in size or have a planting requirement of less than ½ acre can qualify to pay the fee. All other projects must plant the required mitigation. In addition, these members believe that keeping the fee at this level maintains proportionality with the actual cost of forest planting in Montgomery County which they believe is presently in line with the \$.90 fee amount. Currently, MNCPPC has a five acre planting project that costs slightly more than \$100,000, which is approximately \$.45 per square foot for installation of plant material. According to MNCPPC staff, the actual cost would be closer to \$.90 if they had to acquire the land and pay for maintenance of the planting area, direct costs that they avoid since they own the land already and they can use their staff for some maintenance. These members believe current fees also would avoid adding excessive cost for both large and small property owners who could be dealing with increased mitigation requirements due to other parts of Bill 37-07 and/or the Elrich Amendments.

The members of the Committee who support Bill 37-07 believe the seven examples that were provided previously to the Planning Board by staff regarding the comparative costs of the current FCL, Bill 37-07, and Elrich amendments⁸ are most illustrative of these issues. These examples in their entirety can be found in the September 17, 2007 Staff Report to the Council's T&E Committee. These members believe the examples indicate that the Elrich amendments would result in unreasonably large increases in replanting requirements and fee-in-lieu costs, in addition to other related costs like loss of lots. In the appendix of this report is a summary of the seven projects with added considerations prepared by the members of the Committee who support this position.

⁸ Example Projects prepared by MNCPPC for the September 17, 2007 Staff Report.

In support of Elrich Amendments: In general, the members of the Committee who support the Elrich amendments do so because they believe that Montgomery County should create stronger incentives to maximize on-site forest retention during the development/redevelopment process. While they realize that the FCL is not (nor should it be) the only tool the County can use for tree protection, it is a critical tool and currently our best opportunity to save existing trees and forests in the face of ever-increasing threats from development.

Accordingly, these members' perspective on the topics of increasing reforestation ratios and fee-in-lieu charges is that increasing these is a market-driven, efficient way to (1) incentivize retention of existing on-site forests, (2) to better reflect the lesser environmental benefits provided by replanted forests, and (3) to maintain the benefits of forests on site rather than relocate them to areas where the need may be less. Existing forests provide significantly more value than replanted forests.⁹ Water quality and stream health are directly related to the total canopy cover of the watershed overall.¹⁰ Thus, while forested streamside areas provide a vital "last line of defense" for water quality, watersheds with more overall forest cover are healthier than those with lower overall forest cover.¹¹

Furthermore, these members believe increasing reforestation ratios is an excellent way to incentivize more valuable on-site conservation over easier (and currently cheaper) replanting. The Energy and Air Quality Advisory Committee concurs on this issue, stating "if the County is serious about improving its local climate... then it must focus on maintaining as much existing forest as possible... Replanting is rarely successful, is very expensive, and uses many resources."¹²

These members believe preserving existing forest can also provide financial benefits for developers and homeowners. Builders in Maryland noted a 10-15% premium for a lot with trees, and property values in California had a 17% increase in value for property

⁹ "For the first five years a new forest buffer performs [pollution control] at a standard equal to that of grass." Todd 2002, *supra* note 2. "If you were able to convert unites of benefit whether numbers of nitrogen, or soil protection, or habitat, it would take a long time for the new forest to achieve a level of service provision equal to the mature forest... while also incurring the added risk that those services may not ever be matched (due to failure rates, etc.)." E-mail from Albert Todd, *supra* note 3.

¹⁰ For example, in the Mid-Atlantic, a watershed with 50% tree cover will have a stream health ranking of "excellent", while a watershed with only 30% tree cover will have a stream health ranking of "poor." Scott Goetz, et al. "IKONOS imagery for resource management: Tree cover, impervious surfaces, and riparian buffer analyses in the mid-Atlantic region." *Remote Sensing of Environment* 88 (2003): 195-208.

¹¹ *Id.* See also generally *Forests for the Bay*, Environmental Law Institute 2000; and *The State of Chesapeake Forests*, The Conservation Fund 2006.

¹² See Page 1 of the July 15-08 FCL commentary to the County Council of the Energy and Air Quality Advisory Committee. The full quotation reads: "An important consideration is that trees and forests are not "quick fixes", and that it is far easier to lose forests than replace them. Experience with re-afforestation efforts in Montgomery County has not been positive. Therefore, if the County is serious about improving its local climate and decreasing its impact on climate change, then it must focus on maintaining as much existing forest as possible, and regaining segments of forest lost to this point. Replanting is rarely successful, is very expensive, and uses many resources. In addition, the benefits of trees and forests are difficult to overstate..."

with trees.¹³ Expensive stormwater management and erosion and sediment control requirements decrease as the amount of on-site forest preservation increases. In many neighborhoods without storm drains, forest and canopy cover are the only stormwater management.

In addition, there are practical problems with reforestation that argue in favor of strongly incentivizing retention of existing forest: (1) It is not easy to identify appropriate sites for reforestation; and (2) these members believe the County does not (and likely cannot) provide sufficient oversight and maintenance to ensure that reforestation plantings are successful and likely to grow into healthy forests. Additional challenges to reforested plantings maturing into healthy forests include deer browse and competition from invasive species.

Finally, with regards to the fee-in-lieu resolution in particular, raising the fee-in-lieu is a pragmatic recognition of how the economy has changed since the prior fee-in-lieu rate (of \$0.90 per sq. ft.) was set. Similarly, tying future increases in the fee-in-lieu to normal and expected continuing changes in the Consumer Price Index is a practical way to continue to recognize that economies change and to avoid unnecessary, repetitive legislation to keep the fee properly adjusted to current costs.

In addition, these members believe that it is misleading to suggest that MNCPPC planting costs (which fee-in-lieu covers) are cheaper than a raised fee would justify. These members believe that simply looking at direct spending by MNCPPC ignores the many other costs actually incurred as part of planting projects. While park staff can do some mowing in areas accessible to large mowers, in areas with limited access for large equipment MNCPPC contracts out mowing and herbicidal spraying. In addition, some invasive species control on planting sites is maintained by volunteers, whose time is not included in direct costs figures cited above. These members also believe that any land provided by MNCPPC for planting should be included in planting cost calculations.

Issue	Current FCL	Bill 37-07	Elrich Amendments
Preferred Sequence for Mitigation	Consistent with State FCA giving highest priority to enhancement of existing forest through on-site selective clearing, supplemental planting or both, then on-site reforestation or afforestation. [22A-12(e)(1)(A)]	Changes preference sequence to on-site reforestation or afforestation, then off-site reforestation or afforestation, followed by non-native and invasive management	Same as Bill 37-07.

¹³ Riparian Forest Buffer Panel Report: Technical Support Document, Chesapeake Bay Program, 1996.

		control with supplemental planting. [Circle 41 Line 1030]	
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FCAC Comments: The Committee reached a consensus that enhancement of existing forests should remain a mitigation option, as it currently is in the existing FCL. We oppose the removal of forest enhancement as a mitigation option, as both Bill 37-07 and the Elrich Amendments propose to do. It is our understanding that the removal of this provision was not founded on any scientific or ecological basis, but rather as “code clean up” since the provision is currently rarely used. The Committee feels that instead of removing a potentially useful but rarely used mitigation option, the County should leave the option in the law and develop ways to encourage its use in appropriate cases.

Issue	Current FCL	Bill 37-07	Elrich Amendments
Maintenance Period Following Planting	Following planting, 2 years of maintenance is required to ensure forest establishment, or sufficient numbers of thriving trees. [22A-12(h)]	Increases all maintenance periods to 5 years. [Circle 46 Line 1182]	Same as Bill 37-07. [Circle 89 Line 477]

FCAC Comments: The Committee has two major positions that are described below.

In support of Bill 37-07 and the Elrich Amendment: The members of the Committee who support increasing the current two-year maintenance and bonding period to five years see this as essential to strengthening our existing forestry law because it allows more time for new plantings to become established and functional forests. As noted above, successfully establishing new plantings is a challenge in any situation.

These members believe that failure rates for plantings are very high due to factors such as deer browse, competition from non-native species, droughty conditions, and poor or nonexistent maintenance. Current regulations defining what a “successful” planting is make actual growth into healthy, functioning forests far from a guarantee.¹⁴ In addition, the Planning Department can only extend the maintenance and management period if less

¹⁴ See *supra* note 3. The law and regulations state that a “successful” reforestation is 100 live trees per acre capable of reaching 2 inches DBH in 7 years, but only define “live” as a tree with 2 normal size leaves that has lost its cotyledons (essentially, pre-leaves). So a very small maple, for example 6 inches tall with 3 leaves, would likely be counted as successfully replanted. This is in no way a guarantee that the replanted trees will become dominant and form a mature forest, especially given the challenges of deer browse and invasive species.

than 50% of the plantings have survived (again noting that even plantings deemed to have successfully survived need only have two leaves).¹⁵ In all other instances the performance bond must be released. For example, if 51% of the trees survive and the applicant then does some last-minute planting to make up for some of the non-surviving trees, the Planning Department is obligated to release the performance bond without any more maintenance required, despite the history of high plant mortality.

The result has been unsuccessful efforts to replace lost forest cover with poorly established plantings. Therefore these members believe the extended bond and maintenance period is critical as a measure to ensure sufficient time and follow-through on planting maintenance requirements, and to increase the chances of newly planted trees' becoming healthy and functioning forest.

In support of the existing FCL: The members of the Committee who oppose increasing the maintenance and bonding period from 2 to 5 years do so because they believe it is unnecessary and penalizes efforts to achieve successful forest plantings within the current 2 year time frame. These members believe that when installed and maintained properly the success of a planted forest can be determined within 2 growing seasons.¹⁶ In those instances where there is high plant mortality due to poor plant selection or management, the Planning Department already has the authority to hold bonds and extend the maintenance period indefinitely until forest plantings are acceptable. These members believe plant mortality can be addressed with greater success by changing regulations rather than changing law. For example, the regulations might require inspections and maintenance during the current 2 year time period. These members conclude that the effect would be to eliminate any ineffective maintenance practices during those 2 years and provide greater certainty that plantings will be acceptable at the end of the 2 year period. The regulations might require different thresholds for survivability and the use of best management practices. We believe that a regulatory approach would be more successful and less expensive. The cost of the proposed amendment must be noted. An increase in the maintenance period from 2 to 5 years is a time increase of 150%. These members believe it would require a substantial increase in bond premiums and in inspection costs that will add to the already burdensome cost of regulation borne by homeowners in Montgomery County and make housing in the county less affordable unnecessarily.

¹⁵ Section 108.E.(3) footnote (c).

¹⁶ The American Standard for Nursery Stock (ANSI Z60.1 – 2004) recognizes two (2) growing seasons as the timeframe – with appropriate maintenance, etc – that a transplanted tree can be successfully reestablished.

Issue	Current FCL	Bill 37-07	Elrich Amendments
County Arborist roles and responsibilities	Provides for a limited role of the County Arborist / DEP in application and review of FCL	Deletes County Arborist section from the FCL; Would not change current relationship between DEP and Planning Department	Generally gives the County Arborist and DEP more oversight over application of the FCL

FCAC Comments: The Committee reached consensus that it would be helpful to provide DEP with additional oversight of the FCL, but also agreed that a time limit should be established for a DEP review so that this additional agency involvement does not present a barrier to progress on project approvals.

Overall, the Committee is in agreement that there must be better coordination among DEP and the Planning Department on the Forest Conservation Law. The County Arborist, a position created by the FCL, is located within DEP and DEP is responsible for forest conservation in the county. However, the Planning Department is currently given a larger role in implementation of the FCL. Additional oversight by DEP and the County Arborist would enhance implementation of the FCL and give the public more confidence that forest conservation and the environment are considered when development projects are under review. However, an appropriate time limit (perhaps 30 days) should be established to prevent this additional oversight from creating unnecessary delays in the development review process. While the Committee does not take a position on specific duties of the County Arborist, we see a need for clarification of the title "County Arborist" to "Forest Conservation Coordinator." The Committee is also in agreement that the County Council needs to think through the mechanics carefully before finalizing legislation redefining the role of the County Arborist, and that additional staffing requirement at DEP should also be taken into consideration.

Issue	Current FCL	Bill 37-07	Elrich Amendments
Champion Trees: List	The definition of "champion tree" remains dependent on a list of trees maintained by the Montgomery County Forest Conservancy District Board – a voluntary program within a voluntary	Same as current FCL. <i>[Circle 3 Line 44]</i>	Cites the list developed by the Forestry Board but requires that the County Arborist maintain the list. <i>[Circle 70 Line 32]</i>

	board. [Expedited Bill 45-06 Line 5]		
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FCAC Comments: The Committee reached a consensus that it would be helpful to provide better public information regarding the Forest Conservancy District Board's (Forestry Board) Champion Tree Register. In order that the public have greater access to the information contained in the register, which is currently only published every two years, the Committee agreed that the register be duplicated in a database and the database kept current by the County Arborist.

Issue	Current FCL	Bill 37-07	Elrich Amendments
Champion Trees: Definition	The definition of "champion tree" includes non-native invasive tree species. [Expedited Bill 45-06 Line 5]	Modifies existing definition to one that would be approved by DNR. [Circle 3 Line 44]	Same as current FCL. [Circle 70 Line 32]

FCAC Comments: The Committee reached a consensus, contrary to the existing FCL, Bill 37-07 and the proposed Elrich Amendments, that non-native invasive tree species should not be protected as Champion Trees. We reached this conclusion for several reasons. Non-native invasive plants grow and spread quickly to cover large areas. They are growing in an environment in which they did not evolve so they are not subject to the many various natural controls present in their native environment such as pathogens, herbivores, or parasites. Such natural controls would limit their growth and spread in their natural environment. Non-native invasive plants often out-compete the native plants for water, light and nutrients in an ecosystem, crowding them out until they are at best a minority component of the ecosystem. They can disturb relationships between native insects and native plant species such as seed dispersal and pollination. They can hybridize native plant species. Non-native invasive plant species can inflict environmental, cultural, ecological, and economic damage and should not be protected under the Forest Conservation Law.¹⁷

Issue	Current FCL	Bill 37-07	Elrich Amendments
Priority areas	References "priority forests" and "priority planting areas," placing higher intrinsic value on	Removes several but not all references to priority areas. [Circle 31 Line	Same as Bill 37-07.

¹⁷ Source: Non-native Invasive Plants. Carole Bergmann. Retrieved from <http://www.montgomerycountymd.gov/content/dep/invasives/invaders.pdf> on July 23, 2008.

	them. [22A-11(a)(2)(B), 22A-12(b)(2), 22A-12(e)(3), 22A-12(g)(2)(C-E), 22A-13(e), 22A-27(a)]	794, Circle 39 Line 978, Circle 43 Line 1080, Circle 49 Line 1258, Circle 61 Line 1573]	
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FCAC Comments: The Committee reached a consensus in support of the Bill 37-07/Elrich Amendment proposal to remove some, if not all, references to “priority areas” from the code, and instead place the “priority area” provisions in the FCL regulations. We believe this is a logical change and will provide the flexibility needed to best implement this part of the law.

Issue	Current FCL	Bill 37-07	Elrich Amendments
Legal Standing to Residents	No provisions in current FCL	Same as current FCL	Gives Montgomery County residents or organizations legal standing to appeal decisions based on materially false, misleading, inaccurate, or incomplete information. [Circle 93, Line 570]

FCAC Comments: While members of the Committee disagreed over the desirability of providing legal standing to Montgomery County residents, the Committee ultimately decided it did not feel well-enough informed on the legal ramifications of this provision to take a formal position. Since this provision raises a variety of important legal issues, we encourage the County Council to carefully examine those legal issues and retain experienced legal counsel to provide advice. In addition, we believe the County Council should take into account the following issues and questions as part of its deliberations:

- Are there other local, state, or national jurisdictions that have granted similar citizen standing for this type of issue?
- Does the proposed citizen standing conflict with state law?
- Some Committee members are concerned that citizen standing will encourage frivolous law suits. Consequently, the Committee recommends that if citizen standing is granted, the Counsel consider including the following to limit the potential for frivolous lawsuits:

- Penalty provisions for suits that are determined to be frivolous by the court (e.g. complainant must pay defendant's legal costs)
- Provision placing a maximum time limit on when complaints may be filed.
- Any complainant must have their claims substantiated by a qualified professional in order for the complaint to be valid.
- Is there potential for the standing provision to be used negatively in disagreements between neighbors?

Issue	Current FCL	Bill 37-07	Elrich Amendments
Advanced Notice	No provisions in current FCL.	Same as current FCL.	Requires advanced notice in writing, at least 10 days prior to any forest cutting, clearing, or grading activity to the Planning Director and residents of adjoining properties [Circle 92, Line 545]

FCAC Comments: The Committee reached a consensus that a notice requirement is desirable and would benefit both the notice-giver and the notice-recipient(s). However, we feel that the details of how notice is provided deserve additional consideration by the County Council. Accordingly, we urge the County Council to consider the following issues:

- The success and practicality of the two available notice methods—posting vs. individual written notice—depend on the particular situation. In some situations posting is more effective and efficient, and in other cases individual written notice (as provided for in the Elrich amendments) is more desirable. Some Committee members felt that providing an “either/or” option for notification would allow the landowner to choose the most effective notice method for their particular case.
- The County Council should include a time window to ensure that notice is not provided too far in advance of or too close to the time of the proposed cutting, clearing, or grading— e.g. no more than 60 days and no less than 10 days prior to the activity. The Elrich amendments only include a minimum advance notice timeline, leaving open the possibility that notice could be provided years in advance of the actual clearing. The Committee’s proposed change would help avoid multi-year intervals between approval and actual start of site work.

- If posting is required, the County Council should clarify who would determine size and specs for the required signs.
- If individual written notice is required, the County Council should ensure direction is provided regarding how notice should be provided if the adjoining property is a multi-family dwelling.
- The County Council should also note that the proposed notice provision and the proposed standing provision are linked, in that failure to provide notice would trigger standing for the party to whom notice was not provided.

The Committee discussed but is not taking a position on the following issues:

- Afforestation requirements. Bill 37-07 and the Elrich Amendments differ only slightly in their afforestation percentage requirements, with Elrich proposing 20% for medium density residential areas, and Bill 37-07 proposing 25% for this same category. It is our understanding that the difference resulted from efforts to be consistent with other proposed changes, rather than a substantive disagreement about this particular category. We expect that the Planning Department and Mr. Elrich will be able to resolve this difference, and are therefore not taking a position.
- Agricultural activities. Concern was expressed about agricultural activities falling under a Level 3 review, as opposed to enjoying the exemption status granted under the current FCL and consistent with state law, which does not apply the FCL to agricultural activities. It is our understanding that this concern is being resolved and that the agricultural community is satisfied with the way it is being addressed. We presume that the agricultural community and County Council will be able to work out a mutually agreeable solution, and are therefore not taking a position on the agricultural issues in the bill. Should this change, the Committee would be willing to provide additional input on the issue.
- Creation of a Champion Tree "Class." During its discussions of this issue, FCAC members raised several questions regarding the practical effects of the Elrich Amendments' definition of a champion tree "class." As a result, Mr. Elrich has decided to re-evaluate his proposed definition in order to address the Committee's concerns. Accordingly, the Committee is not taking a position on the originally-proposed definition.

Committee Survey Responses

As noted in the introduction to this report, a final vote was taken in order to give FCAC members an opportunity to express their individual opinions on each of the positions described in this report. The vote was done via an anonymous online survey. Seventeen of the Committee's twenty members responded to the survey. The responses to the survey are provided below.

Issue		I strongly support this position	I generally support this position, but I'm open to compromises, changes, or have concerns	I do not feel strongly either way	I generally oppose this position, but I'm open to compromises, changes, or have concerns	I strongly oppose this position	Abstain	Did not vote
Definition of Forest (Pg. 2)	Position in support of Bill 37-07	7	1	0	0	7	2	3
	Position in support of Elrich Amendments	7	0	0	2	6	2	3
Trigger for application of FCL (Pg. 3)	Consensus position	8	3	0	1	3	2	3
Clarification of the FCL using a Level 1/2/3 Review framework (Pg. 4)	Consensus position	10	4	0	0	1	2	3
Trigger for review by the Planning Department for recorded single lots (Pg. 4-6)	Position in support of Bill 37-07	6	1	0	2	6	2	3
	Position in support of Elrich Amendments	7	2	0	0	6	2	3
Land Use Types (Pg. 6-7)	Consensus position (Survey results regarding what Committee members believe would be appropriate thresholds are provided in the body of the report)	10	2	0	0	3	2	3
Conservation Thresholds (Pg. 8-10)	Position in support of Bill 37-07 and the Elrich Amendments	8	1	1	2	3	2	3
	Position in support of the current FCL	4	2	1	0	8	2	3

Committee Survey Responses, Cont...

Issue		I strongly support this position	I generally support this position, but I'm open to compromises, changes, or have concerns	I do not feel strongly either way	I generally oppose this position, but I'm open to compromises, changes, or have concerns	I strongly oppose this position	Abstain	Did not vote
Mitigation (Reforestation) Ratios and Fee-in-lieu Rate (Pg. 10-14)	Position in support of Bill 37-07	8	0	0	0	7	2	3
	Position in support of Elrich Amendments	7	0	0	0	8	2	3
Preferred Sequence for Mitigation (Pg. 14-15)	Consensus position	11	2	1	0	1	2	3
Maintenance Period Following Planting (Pg. 15-16)	Position in support of Bill 37-07 and the Elrich Amendments	8	0	0	1	6	2	3
	Position in support of the current FCL	6	1	0	0	8	2	3
County Arborist roles and responsibilities (Pg. 17)	Consensus position	9	2	0	1	3	2	3
Champion Trees: List (Pg. 17-18)	Consensus position	11	2	2	0	0	2	3
Champion Trees: Definition (Pg. 18)	Consensus position	12	2	0	0	1	2	3
Priority areas (Pg. 18-19)	Consensus position	9	3	1	2	0	2	3
Legal Standing to Residents (Pg. 19-20)	Consensus position	6	4	1	1	3	2	3
Advanced Notice (Pg. 20-21)	Consensus position	10	3	0	1	1	2	3

**Appendix:
Extended position statements**

This report was compiled from position statements drafted by members of the Forest Conservation Advisory Committee that reflect the discussions held by the entire Committee. In certain cases, the member responsible for drafting a specific position statement provided significantly more information and explanation than could be included in the main body of this report. In these cases, the Committee has summarized the key points in the main body of the report, but included the full position statement, as drafted by the member, here for purposes of additional reference only.

*** Trigger for review by Planning Department: Extended position statement in support of the Elrich Amendments.**

The Elrich Amendments require a Level 1 Review by the Forest Conservation Law to be triggered when any of the following apply:

- (1) an activity will remove forest measuring 5,000 square feet or greater on a lot 40,000* square feet or greater.

Councilmember Elrich believes 5,000 square feet, or half the minimum size of a forest as defined by the existing FCL and Maryland state law, is an appropriate starting measurement for potential forest loss to be used in this law.

Those members of the Committee who support the Elrich amendments believe the reduction of natural forest areas from 45% to 28% from 1973 to 2000 (Montgomery County Forest Preservation Strategy, October 2000) is a rate of loss that is unacceptable. Society is dependent on forests to clean the air and water. Research shows that global warming is partially due to loss of natural areas. Montgomery County's Green Infrastructure Plan cites the ecological and social impacts of natural area reduction and fragmentation—including isolation of plant and animal communities, increased exotic/invasive species, loss of biodiversity and wildlife populations, disruption of natural landscape processes, degradation of air and water resources, loss of services provided by natural systems, increased costs for services to dispersed development, and decreased sense of community and life quality. The Elrich Amendments capture more properties for FCL review, encourage on-site forest retention, and have higher reforestation and afforestation requirements. These members believe that by increasing these requirements, the Elrich Amendments incentivize on-site retention of forest. This could slow the rate of forest loss and thereby lessen the ecological and social impacts of natural area reduction and fragmentation. These members believe the existing FCL does not adequately slow the rate of forest loss, and that Bill 37-07 does not provide any additional significant mechanisms to slow the rate of forest loss.

The Elrich Amendments attempt to significantly slow the rate of forest loss by broadening FCL trigger criteria (the list you are reading) and by modifying FCL tables "Forest Conservation Threshold and Required Afforestation as a Percentage of Net Tract Area" for Level 1 Reviews. These changes will subject more properties to the FCL review process. In these tables, Councilmember Elrich added a "Low Density Residential Area" to the Land Use Type and reorganized zoning categories throughout the Land Use Type column to accurately reflect land use in Montgomery County today. Councilmember Elrich raised the Conservation and Afforestation Thresholds. These changes result in more properties being captured for FCL review and higher reforestation and reforestation requirements. The Committee members who support this change believe that the result of these changes will be a slower rate of forest loss.

(2) a Department of Permitting Services' Sediment Control Permit is necessary when there is proposed land disturbance of 5,000 square feet or greater. As is the current procedure, the Sediment Control Permit is the trigger for review.

(3) a person or entity is submitting a development or site plan. This review requirement is the same in the existing FCL and Bill 37-07.

(4) an activity threatens a Champion Tree or Specimen Tree. Councilmember Elrich believes that Champion Trees should trigger review of the FCL because they provide value to all Marylanders. Councilmember Elrich believes that Specimen Trees should be a trigger for review because of their significance to arboriculture, relationship to Champion Trees, and value to all Marylanders. (as evidenced by the public outpouring following the demise of the champion white oak in Poolesville)

(5) disturbance of any forest in a environmental buffer area or a Special Protection Area. Councilmember Elrich recognizes the need to protect forest in areas where streams, wetlands, and related natural features are of very high quality and where special measures must be applied to land development and to certain land uses in order to protect the high quality conditions of these natural features. Councilmember Elrich recognizes that it is imperative to protect our riparian buffers. Riparian buffers are the most efficient way to improve water quality in Montgomery County and the Chesapeake Bay. The Elrich Amendments place this review requirement under a Level 1 Review; the current FCL and Bill 37-07 require the less stringent Level 2 Review.

The requirements of a Level 1 Review for the applicant are:

- Submit a Natural Resource Inventory / Forest Stand Delineation, showing the environmental (soil, wetlands, etc.) conditions on the property and location of all trees
- Submit a Forest Conservation Plan showing what trees will/won't be cut
- Perform mitigation as required in the law. This may include:
 - On site tree preservation
 - On-site replanting
 - Off-site replanting

° Fee-in-lieu

The purpose of these requirements is to slow the rate of forest loss in the county, incentivize on-site preservation of forest, and provide for off-site mitigation.

*Note: The Elrich Amendments reads “lots of 10,000 square feet or greater”; however Councilmember Elrich has declared since the introduction of his Amendments to committee that he will use the measurement of 40,000 sq ft or greater.

The Elrich Amendments require a Level 2 Review by the Forest Conservation Law to be triggered when an activity will remove forest measuring less than 5,000 square feet on a lot 40,000* square feet or greater.

The requirements of a Level 2 Review for the applicant are:

- Submit a Tree Inventory and Protection Plan showing what trees you will/won't cut and how you will protect retained trees
- There is NO replanting/mitigation required

These requirements prove that you qualify for this level of review and ensure insure that no forest beyond allowed amount will be cut or lost due to construction.

† Reforestation Thresholds: Extended position statement in support of Bill 37-07 and Elrich Amendment

In support of the position statement provided in the main body of this report, see also the two references cited below.

Article #1: Green Infrastructure Fact Sheet

The well-researched statements below supporting an increase in reforestation thresholds are excerpted from the “Green Infrastructure Fact Sheet” of the League of Women Voters of Montgomery County, September 2007 [available at <http://www.lwvmd.org/mont/fssept2002greeninfrastructure.html>].

Forest is valuable as a storm water management tool to prevent runoff and sedimentation. It costs about \$1 million per mile to restore streams that have become eroded. Trees and plant cover also improve water quality, acting as purifying filters. According to the National Tree Trust, one large tree can provide a day's supply of oxygen for up to four people and can lift up to 100 gallons of water out of the ground and discharge it into the air in one day. An acre of growing trees removes carbon dioxide equivalent to that produced by a car driven 26,000 miles. The trees also act as a carbon sink by removing the carbon from carbon dioxide and storing it as cellulose in the trunk while releasing oxygen into the air. Sound waves are absorbed by tree leaves and branches. Studies

suggest that belts of trees 100 feet wide and 45 feet high can cut the perception of highway noises in half.

Natural Economics

As a result of having to spend billions of dollars correcting past mistakes in land use, we have begun to recognize the monetary value of land to our future. A recent study shows that the tree canopy of the Willamette/Lower Columbia Region of Oregon provides hundreds of millions of dollars in environmental and economic benefits, such as reducing storm water runoff, energy usage, and air pollution. The "Regional Ecosystem Analysis for the Willamette/Lower Columbia Region of Northwestern Oregon and Southwestern Washington State," conducted by the conservation group American Forests, found that the region's trees are removing 178 million pounds of pollutants each year, a savings valued at \$419 million. Sulfur dioxide, carbon monoxide, nitrogen dioxide, ozone, and particulate matter are among the pollutants that trees can absorb. This same tree cover is saving communities an estimated \$20.2 billion in storm water management costs (the amount it would cost to build a facility to handle that same quantity of storm water runoff).

In a recent sale of some 12,000 acres of Canaan Valley, WV, land to the U.S. Fish and Wildlife Service by Allegheny Energy Inc., the power company used a new approach that calculated the conservation value of the property. While the Fish and Wildlife Service paid the conventional fair market value, the power company will submit the additional conservation value to the IRS as a deductible donation. By including the worth of the land's ecosystems, it came up with a figure that more than doubled traditional estimates. An independent appraiser calculated the "extra" value by researching what has been paid in recent years to mitigate various kinds of environmental damage. Included in the estimate was the value of some of the land as wetland banks and open space to mitigate destruction of habitat for rare species. But the estimate of the property's value in terms of climate control, was the largest figure. At \$14 a ton for the carbon dioxide reductions (the gas causing greenhouse global warming) that could be gained by planting trees on the property and disposing of dead and dying trees that would release carbon dioxide as they rotted, the appraisal added \$7 million to the property's value solely for carbon sequestration. It is doubtful that the appraiser's values will be fully accepted by the IRS, but there is a valuable lesson here in the value of land. An economist with the nonprofit Environmental Defense organization said, "The reason ecosystems have been lost is because the services they provide really haven't been valued in the marketplace."

Article #2: Climate Change News from the Environmental and Energy Study Institute

Climate Change News
Environmental and Energy Study Institute
Carol Werner, Executive Director
June 20, 2008

Forests Impact Climate Change

In a report in the June 13 issue of *Science*, Gordon Bonan of the National Science Foundation's National Center for Atmospheric Research (NCAR) presents the current state of understanding how forests impact global climate. The report says there are roughly 42 million square kilometers of forest on Earth, covering almost a third of the land surface, and those environments play a key role in both mitigating and enhancing global warming. Bonan said, "Forests have been proposed as a possible solution [to mitigate global warming], so it is imperative that we understand fully how forests influence climate."

Bonan reports that the teeming life of forests, and the physical structures containing them, are in continuous flux with incoming solar energy, the atmosphere, the water cycle and the carbon cycle—in addition to the influences of human activities. The complex relationships both add and subtract from the equations that dictate the warming of the planet. Bonan said, "In the Amazon, tropical rainforests remove CO₂ from the atmosphere. This helps mitigate global warming by lowering greenhouse gas (GHG) concentrations in the atmosphere. These forests also pump moisture into the atmosphere through evapotranspiration. This cools climate and also helps to mitigate global warming."

We need better understanding of the many influences of forests on climate, both positive and negative feedbacks, and how these will change as climate changes. Then we can begin to identify and understand the potential of forests to mitigate global warming."

For more information see:

<http://www.sciencemag.org/cgi/content/short/320/5882/1444>

http://www.terraviva.com/reports/If_A_Tree_Falls_In_The_Forest_And_No_One_Hears_It_Does_The_Climate_Change_999.html

† Reforestation Thresholds: Extended position statement in support of the existing FCL

Those members of the Committee who do not support the Bill 37-07 change to the conservation thresholds instead prefer leaving the law in its current state. There are several reasons for leaving the forest conservation thresholds as they were originally established by the State of MD and Montgomery County.

First, the members of the Committee who support the existing thresholds believe the law is working as indicated by the statistics for the 15 years it has been in effect. These members believe the purpose and most appropriate use of the Forest Conservation Law is to simultaneously save priority forests and create new forests in sensitive, unforested

stream buffer areas. According to these members' calculations, 93% of forest on properties that trigger the FCL's reforestation requirements has been reforested or retained as forest cover (calculated based on data provided by Parks and Planning in its "15- Year Forest Conservation Activity in Montgomery County", MNCPPC, July 2008. Calculation made by FCAC member and not verified by The Planning Department). Countywide, there has been an approximately 13% increase in the stream buffer afforestation (Univ., of MD study) These members believe that the aforementioned statistics indicate that the existing forest conservation thresholds are working to provide for the maximum amount of forest retention while allowing the clearing of lower priority forests that contributes to the reforestation and enhancement of priority stream buffer areas. They believe current thresholds strike this delicate balance while still allowing the property to be developed under the zoning it was granted and in accordance with the community's Master Plan vision.

Secondly, Committee members who support the current thresholds believe it is unfair to pass new thresholds that will negatively affect only a few projects. There are currently approximately 28,100 residential units (5,508 single family detached homes, 4747 townhouses and 17,845 multifamily units) in the residential pipeline that have been approved by the Planning Department but have not been built. These units will come on line in the next 6 to 10 years based on market conditions. This combined back log will continue to grow over the next couple of years as the economy continues to struggle through the current down turn. All of these projects will be exempt from any changes to the Forest Conservation Law. The members of the Committee who support the existing thresholds believe they will represent the vast majority of development in Montgomery County for the next decade. Consequently, any new changes will affect relatively few projects that represent the few remaining parcels in the County that have a substantial amount of forest cover. These members believe that those few projects that will be affected by a new law with higher thresholds will be unfairly impacted by being the last ones to be developed.

Third, Committee members who support this position believe we are running out of land that is both forested and developable. In addition, they believe that most developable land has very little forest outside of buffer areas that can be considered for clearing or is altogether unforested. Due to the land shortage and other factors, much of the development that will take place in this county in the coming decades will be infill and redevelopment. These members believe that projects will provide a net gain in forest cover since they will be providing off site forest planting. They believe this can be seen already when reviewing the statistics for regulated projects in the year 2007, in which there were 184 more acres of reforestation and forest retention than there were acres of existing forest.

Fourth, these members believe that increasing the thresholds is without peer-reviewed scientific basis and will adversely impact the ability to achieve other desirable community policies. In fact, these members believe there is no logical reason provided thus far that would warrant a radical change to a law that has been in place for 15 years

and has been proven that it is meeting its intended purpose. As stated by Planning Board staff at the Planning Board, the basis for these proposed changes is in response to recommendations by the C&O canal taskforce, a group established in response to illegal forest clearing that occurred along the Potomac River. Increasing the threshold by any amount would not have changed what occurred along the C&O canal. Testimony presented to the Planning Board by staff, affirmatively indicates a reduction in moderately priced, work force and market rate housing and mixed use density of approximately 10-20%. As a result of a 5 percentage point (25-33% actual increase), the impact is much greater for properties that would fall under Councilman Elrich's proposed low-density residential land use category.

For the reasons outlined above, those members who support the existing thresholds believe it is unnecessary to change the thresholds, particularly at this point in time. In fact these members believe a change at this stage of the county's growth cycle could have a big impact on a few land owners and little impact on the county as a whole.

§ Mitigation Ratios & Fee-in-Lieu issues: Extended position statement in support of Bill 37-07

Example Projects provided by Committee members who support Bill 37-07

Below is a summary, with additions by Committee members who support this position, of the example projects were provided by MNCPPC staff in their staff report dated September 17, 2007. In addition to the MNCPPC data, the Committee members who support Bill 37-07 have independently added information pertaining to increasing the fee-in-lieu from \$.90 to \$2.00, although almost all of the examples do not qualify for the Fee-in-lieu payment since they have more than ½ acre of planting required. In addition, these members have independently calculated the increases in the planting requirements and fee-in-lieu costs with the percentage increase for each. They have also added the number of lots they believe would be lost at an estimated cost of \$250,000 per lot, which they believe is a conservative estimate because 25 acre lots would be more valuable and smaller lots would be less valuable. Finally, the cost of the planting is shown at \$.90 per square foot based on information and input provided to these Committee members by MNCPPC staff (information provided outside Committee discussions), and based on input from Committee members that actually are contracted to do the planting.

Example #1:

This example is for a 21.1 acre property in the RE2 zone, which allows 10 residential lots and has 18.6 acres of existing forest. Under the current law the reforestation planting is .85 acres with a planting cost (at \$.90/acre) of \$33,323 (fee-in-lieu not permitted). Under Bill 37-07, the threshold is increased so the planting requirement goes up to 1.91 acres (125% increase). With the increase in the planting requirement, the planting cost goes up to \$74,880 (225% increase).

Under the Elrich amendments, the thresholds are increased numerically so the planting requirement goes up to 7.44 acres (775% increase). The planting cost is \$291,678 (775% increase). These increased costs are also a result of changes to the mitigation ratios, and the

increase in the fee-in-lieu. The members of the Committee who support Bill 37-07 believe is also reasonable to assume that the Planning Board will not allow clearing below the threshold since the ultimate goal is to allow clearing to the Break Even Point, which is much higher than the threshold. In order to meet the threshold level of forest retention, these members believe that the property owner would lose 1 lot at a cost of \$250,000 in addition to the above increase in the planting cost.

Example #2:

This example is for a 49.65-acre property zoned RE2, which allows for 24 residential lots, and has 14.01 acres of existing forest. Under the current law the reforestation planting is 0 so there is no cost or fee-in-lieu. Under Bill 37-07, the threshold is increased so the planting requirement goes up to 1.8 acres and with the fee increase the fee-in-lieu cost would be \$156,816. The planting cost would go from \$0 to \$70,567 (at \$0.90/acre).

Under the Elrich amendments the threshold increases further, which would not cause a loss of lots since the existing forest would be lower than the higher conservation thresholds and higher than the afforestation thresholds, meaning no further mitigation.

Example #3:

This example is for a 377.47-acre property zoned RDT, which allows for 15 residential lots and has 168.6 acres of existing forest. Under the current law the reforestation planting is 9.04 acres with a planting cost (at \$0.90/acre) of \$354,404. The example shows no impact from Bill 37-07 or the Elrich amendments other than the increase in the fee-in-lieu cost, which goes from \$354,404 to \$787,565 (122% increase) for the 9.04 acres of planting required.

Example #4:

This example is a 12.21-acre property zoned OM, which allows for 787,801 square feet of commercial-industrial building area and has 7.85 acres of existing forest. Under the current law the reforestation planting is 1.01 acres with a planting cost (at \$0.90/acre) of \$39,596. Under Bill 37-07 the threshold increases raising the planting requirement to 1.78 acres (76% increase) at a cost of \$69,783. The Fee-in-lieu is not available since the planting is over ½ acre. In order to meet the higher conservation threshold, Committee members who support Bill 37-07 believe the owner would lose 13,721 square feet of building area at a cost of \$343,035. These members therefore believe the cumulative impact would be a cost increase of \$412,818 (1043% increase).

Under the Elrich amendments the planting requirement goes up to 3.13 (209% increase) which would produce a planting cost of \$122,709 (210% increase). Committee members who support Bill 37-07 believe that number would rise to \$465,744 if the cost of lost building area is considered.

Example #5:

This example is a 34.42-acre property zoned R200 TDR3, which allows for 103 lots and has 27.09 acres of existing forest. Under the current law the reforestation planting is 4.86 acres with a planting cost (at \$0.90/acre) of \$190,531. In addition, the note at the bottom of the MNCPPC chart explains *"The amount of forest saved under this example changes because the application must meet the conservation threshold on site. That is, this property is in a single family zone that is using an optional method of development. When an application must meet the conservation or afforestation threshold on site, the physical amount of space available to locate residential units is reduced. This example does not assume a change in unit types from what is proposed."*

Under Bill 37-07 the threshold increases to 8.61 (25% increase) and the planting requirement actually goes down by .24 acres (5% reduction) in order to meet the conservation threshold on site. Committee members who support Bill 37-07 believe there would be a loss of 5 lots in order to meet the threshold on site, at a cost of \$1,177,500. They therefore believe the cumulative cost (assuming fee-in-lieu was used) would be \$1,389,463, an increase of 729% over the current cost.

The Elrich amendment has a planting requirement of 8.38 acres (72% increase), which would result in a planting cost (at \$0.90/acre) of \$328,530 (72% increase). Committee members who support Bill 37-07 believe it would cause a loss of 10 lots at a cost of \$2,467,500 (assuming \$250,000 per lot) in addition to the cost presented above. These members therefore believe the cumulative cost would be over \$2.7 million.

Example #6:

This example is a 12.8-acre property zoned R90 TDR6, which allows for 76 lots and has 9.42 acres of existing forest. Under the current law the reforestation planting is 2.44 acres with a fee-in-lieu cost of \$95,461. Under Bill 37-07 the threshold goes up to 8.61 acres (25%) but since the threshold must be met on site, the planting requirement actually goes down to 1.56 acres at a cost of \$61,158 (36% reduction). Committee members who support Bill 37-07 believe there would be a loss of 6 lots at a cost of \$1,500,000 (assuming \$250,000 per lot), approximately \$21,758 per unit.

Under the Elrich amendments, the threshold goes up to 10.33 acres (50% increase) and the planting requirement goes up to 2.79 acres. The planting cost would be \$109,379 (15% increase). Committee members who support Bill 37-07 believe ten lots would be lost at a cost of \$2.46 million (assuming \$250,000 per lot). These members therefore believe the cumulative cost would be \$38,943 per unit.

Example #7:

This is a recorded single lot on 1.66 acres and is completely forested. Under the current law the planting requirement would be .42 acres, a planting cost of \$16,465. The conservation threshold is .42 acres. Under Bill 37-07 the threshold will go up to .5 acre (19% increase) which would require .57 acres of planting at a cost (at \$0.90/sq ft) of \$22,346 (36% increase).

Under the Elrich amendments the thresholds do not change but the planting requirement increases due to the change in the ratios. The planting requirement goes up to .86 acres (104% increase). The planting cost for this would be \$33,715 (105% increase).




OFFICE OF THE COUNTY EXECUTIVE
ROCKVILLE, MARYLAND 20850

Isiah Leggett
County Executive

MEMORANDUM

September 18, 2008

TO: Michael J. Knapp, President
Montgomery County Council

FROM: Isiah Leggett 
Montgomery County Executive

SUBJECT: Bill 37-07, Forest Conservation Amendments

I am forwarding for your consideration my recommendations regarding Bill 37-07, Forest Conservation and the amendments to Bill 37-07 which have been proposed by Councilmember Elrich (Elrich Amendments). These recommendations, which address the major differences between the existing law, Bill 37-07, and the Elrich Amendments, are set out in the attached table.

There are several key provisions of Bill 37-07 and the Elrich Amendments which could have a significant impact on the costs of developing property in the County. I believe we must find a compromise between the two proposals that would result in the enhancement of forest resources in the County without placing an unreasonable financial burden on individual property owners. In addition, I urge you to adopt a delayed effective date of 1-year for any requirement in the final bill that would result in significant additional cost to builders because it would be difficult for them to comply with those types of requirements while the housing industry is in the worst downturn in many years.

In addition to the recommendations outlined in the attached table, I recommend transferring responsibility for implementing components of the Forest Conservation Law that relate to previously recorded lots from the Maryland-National Capital Park & Planning Commission (M-NCPPC) to the Department of Permitting Services (DPS). More specifically, I recommend that DPS be given responsibility for implementing the Forest Conservation Law as it applies to properties that do not go through the development review process. This change would assist in streamlining the permitting process for most single-lot property owners that are not subject to development review.

Staff from the Departments of Economic Development, Environmental Protection, and Permitting Services will be available to discuss the recommendations included in this transmittal at upcoming Committee and full Council worksessions.

IL:lm

Attachment

cc: Royce Hanson, Chairman, Montgomery County Planning Board
Robert G. Hoyt, Director, Department of Environmental Protection
Carla Reid, Director, Department of Permitting Services
Pradeep Ganguly, Director, Montgomery County Department of Economic Development

Comparison of Major Differences between Proposed Changes to FCL and CE Recommendations

#	Issue	Current FCL	Bill 37-07	Elrich Amendments	CE's Recommendations
1	Definition of Forest	As currently written, consideration should only be given to forested area occurring on the property in question. In some instances, current implementation considers forested area beyond property boundaries. [22A-3]	Same as current FCL. [Circle 4 Line 65]	Requires consideration of forest area beyond the property in question. Includes consideration of forest on neighboring properties and includes areas across political boundaries such as city limits. [Circle 71 Lines 64 and 67]	The CE supports Bill 37-07 but recommends that MNCPPC develop written protocols for their current implementation practices.
3	Trigger for application of FCL	Tract of land must be 40,000 sq. ft. or greater for FCL to apply (except when activity would result in disturbance to champion tree, or forest in environmental buffer or special protection area). [22A-4(b), 22A-5(a)(2)(A), 22A-5(n)(2)(A), 22A-5(p)(2)]	Same as current FCL. [Circle 9 Lines 187, 194, 198, 202, 206, 221]	Currently, the text in the amendments states that a tract of land must be 10,000 sq. ft. or greater for FCL to apply (except when activity would result in disturbance to champion tree, or forest in environmental buffer or special protection area). [Circle 76 Lines 166, 172, 177, 187, 192, 209]	The CE understands that Councilmember Elrich's intent is to increase the area of a tract of land to 40,000 sq. ft. as in current FCL and Bill 37-07.

Comparison of Major Differences between Proposed Changes to FCL and CE Recommendations

#	Issue	Current FCL	Bill 37-07	Elrich Amendments	CE's Recommendations
4	Trigger and type of review by MNCPPC	Activity requires Sediment Control Permit (disturbance equal to or greater than 5,000 sq. ft.). [22A-4]	Level 1 Review – Same as current FCL. [Circle 8 Lines 181-199] Level 2 Review – Any house, addition or accessory structure (that does not result in the cutting or clearing of more than 40,000 sq. ft. of forest). [Circle 9 Lines 200-234] Level 3 – Agricultural activities including forest harvesting.	Level 1 Review – Adds to Bill 37-07 by including cutting of forest in environmental buffers, special protection areas, etc. [Circle 75 Lines 160-184] Level 2 Review – Any house, addition or accessory structure (that does not result in the cutting or clearing of more than 5,000 sq. ft. of forest) [Circle 76 Lines 185-227] Level 3 – Agricultural activities including forest harvesting.	The general concept of three levels of review is acceptable. Technical concerns exist about the proposed language being complete and accurate. Some logical errors may exist in the language that may result in unintended outcomes. Therefore, the CE would like to review final language. The CE recommends a compromise between Bill 37-07 and the Elrich Amendments. However, before commenting on any proposed change, the CE would like to review detailed information such as the number of lots involved and potential costs to owners.
6A	Land Use Types	Land Use Types are used to set forest conservation thresholds and afforestation requirements for different land uses and housing density. [22A-12 (a) Table]	Same as current FCL. [Circle 38 Line 957]	Adds a category of Low Density Residential Area and Removes the category of Institutional Development Area. [Circle 86 Line 417]	Before commenting on any proposed change to the Land Use Types, the CE would like to review detailed information such as the number of lots involved and potential costs to owners.
6B	Land Use Types - Schools	Same as Item 6A.	Same as Item 6A.	Adds a category of Highway Rights-of-Way and School Sites.	The CE supports Bill 37-07.

Comparison of Major Differences between Proposed Changes to FCL and CE Recommendations

#	Issue	Current FCL	Bill 37-07	Elrich Amendments	CE's Recommendations
7	Reforestation Thresholds	Mitigation is required for all forest removed from a tract of land greater than 40,000 sq ft. For forest removed above the applicable threshold, mitigation at a certain rate is required. For additional removal of forest below the threshold, more extensive mitigation is required. [22A-12(a) Table]	Increases reforestation thresholds by 5 percentage points in each land use type except in Agricultural and Resource Areas. Increasing all land use types by 5 percentage points results in higher proportions of increases in more urban areas (commercial land would increase by 1/3 while residential areas would increase by 1/5). [Circle 38 Line 957]	Same as Bill 37-07. [Circle 86 Line 417]	It is likely that the State Department of Natural Resources will change the conservation thresholds at the State level in the near future. The County's thresholds must be at least as strong as those established by the State. The CE recommends that the County retain its current thresholds until the State thresholds have been revised. The County should review its thresholds again at that time.
8A	Reforestation Ratios	When forest is cleared above the threshold, the requirement is 1/4 acre removed. When forest is cleared below the threshold, the requirement is 2 acres established for every 1 acre removed. [22A-4 Definition of Forest Conservation Threshold, 22A-12(C)(1-2)]	Same as current FCL. [Circles 39-40 Lines 989-998]	When forest is cleared above the threshold, the requirement is 1/2 acre established for every 1 acre removed. When forest is cleared below the threshold, the requirement is the same as Bill 37-07 (2 acres established for every 1 acre removed). [Circle 72 Line 79, Circle 87 Lines 431-440]	The CE supports Bill 37-07.
8B	Off-site Mitigation by Preserving Existing Forest (Banking)	When mitigation occurs off-site in existing forest, the requirement is 2 acres for every 1 acre of reforestation needed. [22A-12(e)(2)(B)]	Same as current FCL. [Circle 42 Line 1072]	When mitigation occurs off-site in existing forest, the requirement is 4 acres for every 1 acre of reforestation needed. [Circle 89 Line 468]	The CE supports Bill 37-07.

Comparison of Major Differences between Proposed Changes to FCL and CE Recommendations

#	Issue	Current FCL	Bill 37-07	Elrich Amendments	CE's Recommendations
9A	Definition of Afforestation	No definition exists in the current law. A constant afforestation threshold of 20% is established for all sites countywide. [Section 22A-12(d)(1)] Establishes afforestation requirements on sites not meeting threshold in a table. [Section 22A-12(a)]	Adds a definition of Afforestation Threshold. [Circle 3 Line 32] Maintains the constant afforestation requirement. [Circle 40 Line 1012] Changes the heading on Table 1 from "Afforestation Requirements" to "Afforestation Threshold". [Circle 38 Line 957 in Column 3]	Same as Bill 37-07. [Circle 69 Line 20, Circle 88 Line 442, and Circle 86 Line 417]	The CE does not support changes to the definition of afforestation. The new definition of afforestation threshold is not necessary because the threshold is clearly defined and set in the existing text. It is a constant for all sites countywide. The change in the heading of Table 1 is not recommended because the table shows amounts of afforestation required if the threshold is not met.
9B	Afforestation Requirements	A site with less than the afforestation threshold of the net tract area in forest cover must be afforested in accordance with the afforestation percentages. [Section 22A-12(a) Table]	Establishes afforestation requirement of 20% for all Land Use Types except Medium Density Residential Areas, which is 25%. [Circle 38 Line 957]	Establishes afforestation requirement of 20% for all Land Use Types. [Circle 86 Line 417]	The CE does not support increasing the afforestation requirements.
10	Fee-in-lieu Rate	The fee-in-lieu rate is set at \$0.90 per sq. ft. This is the estimated cost of purchasing plant material, installing plant material, mulching and watering, controlling invasive plant species, reducing damage from white-tailed deer browsing, surveying for survival, and replacing dead plants.	Same as current FCL.	By a separate resolution, increases the fee-in-lieu to \$2.00 per sq. ft. and adds a mechanism to increase the fee by the percentage amount of the annual average change in the Consumer Price Index. [Circle 99]	The CE supports Bill 37-07 and does not support the proposed resolution to increase the fee-in-lieu rate.

Comparison of Major Differences between Proposed Changes to FCL and CE Recommendations

#	Issue	Current FCL	Bill 37-07	Elrich Amendments	CE's Recommendations
11	Preferred Sequence for Mitigation	Consistent with State FCA giving highest priority to enhancement of existing forest through on-site selective clearing, supplemental planting or both, then on-site reforestation or afforestation. [22A-12(e)(1)(A)]	Changes preference sequence to on-site reforestation or afforestation, then off-site reforestation or afforestation, followed by non-native and invasive management control with supplemental planting. [Circle 41 Line 1030]	Same as Bill 37-07.	The CE does not support changing the order of the preferred sequence for mitigation. The existing language is preferred and is consistent with the State's FCA.
12	Maintenance Period Following Planting	Following planting, 2 years of maintenance is required to ensure forest establishment, or sufficient numbers of thriving trees. [22A-12(h)]	Increases all maintenance periods to 5 years. [Circle 46 Line 1182]	Same as Bill 37-07. [Circle 89 Line 477]	The CE supports Bill 37-07 and the Elrich Amendments. The associated regulations should be amended to require self-regulated routine maintenance, documentation of maintenance, and growth and survival data on mitigation sites.
13	County Arborist – Section 22A-30	County Arborist is not included in the definitions, it is mandated to perform several functions in the FCL, and qualifications and duties are outlined in Section 22A-30. [22A-30, 22A-5(d)(1)(B), 22A-21(c), 22A-26(f and g)]	Retains some mandates to the County Arborist [Circle 11 Line 253 (see Item #15); Circle 30 Line 750; and Circle 57 Line 1463]. It removes other mandates [Circle 60 Lines 1543 and 1549], as well as Section 22A-30 [Circle 62 Line 1588].	Retains most mandates of the County Arborist [Circle 79 Line 246 (see Item #15); Circle 95 Line 609]. Adds additional mandates [Circle 70 Line 35 (see Item #17); Circle 81 Line 300 (see Item #14); Circle 82 Line 322 (see Item #14)]. Recommends changing title to Forest Conservation Coordinator throughout the FCL and includes an additional duty relative to identifying potential mitigation sites in Section 22A-30 [Circle 98 Line 691].	<p>The CE recommends the following:</p> <ul style="list-style-type: none"> • The mandates for the County Arborist on Circle 60 Lines 1543 and 1549 should not be removed; • Section 22A-30 should be removed; • The position title should change to Forest Conservation Coordinator; and • The position should be defined in Section 22A-3 as similar to other positions referenced in the FCL.

Comparison of Major Differences between Proposed Changes to FCL and CE Recommendations

#	Issue	Current FCL	Bill 37-07	Elrich Amendments	CE's Recommendations
14	County Arborist – Waivers and Variances	The Planning Director may waive requirements for information in forest conservation and tree save plans that are unnecessary. The County Arborist must review requests for variances to this chapter. [22A-10(b)(3), 22A-21(c)]	Same as current FCL. [Circle 24 Line 601, Circle 26 Line 658, Circle 57 Line 1463]	Requires concurrence with the County Arborist before a waiver for unnecessary information can be granted. Retains review requirement for other variances. [Circle 81 Line 300, Circle 82 Line 322, Circle 95 Line 607]	The CE supports the Elrich Amendments but recommends requiring concurrence with the County Arborist for waivers and variances at the discretion of the County Arborist.
15	County Arborist – Logging and Timber Harvest Plans	Logging and timber harvest plans are reviewed by the County Arborist to ensure that the plans are not inconsistent with County forest management objectives. [22A-5(d)(1)(B)]	Same as current FCL. [Circle 11 Line 253]	Same as current FCL. [Circle 79 Line 246]	The CE recommends changing the language in current FCL to ensure that logging and timber harvesting follow approved BMPs to enhance forest health and sustainability rather than the more subjective County's forest management objectives.
16	Forest Conservation Advisory Board	Section 22A-31 legislates a board to advise the County Executive and County Council on forest and urban forest issues, policies, management, etc. [22A-31]	As DEP understands the Planning Boards intent, the FCAC would remain without changes. However, text in bill deletes Section 22A-31. [Circle 63 Line 1615]	As DEP understands Councilmember Elrich's intent, the FCAC would remain without changes. However, text in amendments deletes Section 22A-31.	The CE does not recommend changing the existing language.
17	Champion Trees	The definition of "champion tree" remains dependent on a list of trees maintained by the Montgomery County Forest Conservancy District Board – a voluntary program within a voluntary board that is published once every two years. [Expedited Bill 45-06 Line 5]	Same as current FCL. [Circle 3 Line 44]	Cites the list developed by the Forestry Board but requires that the County Forest Conservation Coordinator maintain the list. [Circle 70 Line 32]	The CE supports the Elrich Amendments.

Comparison of Major Differences between Proposed Changes to FCL and CE Recommendations

#	Issue	Current FCL	Bill 37-07	Elrich Amendments	CE's Recommendations
18	Champion Trees	The definition of "champion tree" includes non-native invasive tree species. [Expedited Bill 45-06 Line 5]	Same as current FCL. [Circle 3 Line 44]	Same as current FCL. [Circle 70 Line 32]	The CE recommends changing the definition to exclude non-native invasive tree species.
19	Champion Trees	The definition of "champion tree" only protects the largest known individual of each species. [Expedited Bill 45-06 Line 5]	Same as current FCL. As DEP understands, MNCPPC's implementation considers trees that have the potential to be champions as well as champions. [Circle 3 Line 44]	Creates and defines a new term "Champion Tree Class" as the largest known tree of each species and all others within 10% of the point value. [Circle 70 Line 29]	The CE supports the Elrich Amendments but recommends changing the parameter of 10% to the champion and next 5 largest known trees of each non-native invasive species.
20	Priority areas	References "priority forests" and "priority planting areas," placing higher intrinsic value on them. [22A-11(a)(2)(B), 22A-12(b)(2), 22A-12(e)(3), 22A-12(g)(2)(C-E), 22A-13(e), 22A-27(a)]	Removes several but not all references to priority areas. [Circle 31 Line 794, Circle 39 Line 978, Circle 43 Line 1080, Circle 49 Line 1258, Circle 61 Line 1573]	Same as Bill 37-07.	The CE recommends removing all language regarding "priority forests" and "priority planting areas" from the FCL.
21	Legal Standing to Residents	No provisions in current FCL.	Same as current FCL.	Gives Montgomery County residents or organizations legal standing to appeal decisions based on materially false, misleading, inaccurate, or incomplete information. [Circle 93, Line 570]	The CE supports Bill 37-07.

Comparison of Major Differences between Proposed Changes to FCL and CE Recommendations

#	Issue	Current FCL	Bill 37-07	Elrich Amendments	CE's Recommendations
22	Advanced Notification of Activity	No provisions in current FCL.	Same as current FCL.	Requires advanced notice in writing at least 10 days prior to any forest cutting, clearing, or grading activity to the Planning Director and residents of adjoining properties. [Circle 92, Line 545]	The CE supports the Elrich Amendments but recommends limiting the requirement for advanced notification of activity to on-site posting in a similar manner to existing requirements.
23	Scheduling of Inspections	Required notifications are at least 2 working days prior to starting any land disturbing activities. [Section 22A-15 (e)(1-2)]	Increases notification to MNCPPC to 7 days prior to scheduling all required inspections. [Circle 52 Line 1337]	Same as Bill 37-07.	The CE does not support Bill 37-07 or the Elrich Amendments.
24	Minor Modifications to Plans in the Field	Minor modifications to plans can be approved during field inspections. [Section 22A-11 (a)(2)(b)]	Same as current FCL. [Circle 31 Line 788-792]	Same as current FCL.	The CE recommends adding language to ensure that minor modifications approved in the field are in accordance with the approved sediment control permit.



July 17, 2008

Council President Mike Knapp
Montgomery County Council
100 Maryland Avenue
Rockville, MD. 20850

Re: Proposed Forest Conservation Law
Amendments

Dear County Council Members:

The Water Quality Advisory Group (WQAG) is hereby submitting comments for your consideration on the proposed amendments to the County's Forest Conservation Law. Recognizing that this is an extremely complicated environmental and land use statute with significant water quality impacts, the WQAG undertook substantial efforts to understand and analyze the Law and the proposed Amendments. We heard presentations from Councilmember Elrich's staff, MCDEP staff, and held a joint meeting with the Energy and Air Quality Advisory Committee with MNCPPC experts also in attendance and actively participating and informing the discussion.

First and foremost, it is clear that the County does not have, or at least does not follow, an over-arching and science-based forest conservation objective. What is the appropriate and necessary amount of forest cover in this County? Where do we stand relative to this benchmark? How much of this should be riparian, or stream side, forest cover? Absent such an over-arching objective it is difficult to evaluate these amendments.

The WQAG believes that forest cover constitutes the most desirable land use from a purely water quality perspective. We also recognize the importance of the landscape-location of forests – such as the enhanced water quality benefits forests along streams offer relative to upland forests and the benefits of forests in the County's headwater tributaries. Our review of the data suggests that while we, as a County may be slightly losing total forest cover (-7% since this was tracked in 1994), there has been an increase in forest cover along streams.

We also recognize that the type of development in Montgomery County is changing. Montgomery County has experienced significant development of open, undeveloped and forested properties ('greenfields') since 1994, which has resulted in the 7% loss of forested resources. It is our understanding that very few greenfield projects remain and the focus going forward will be on redevelopment and urban infill. We believe that this planning approach will inherently help to protect the County's existing forest resources while generating additional forest resources through afforestation. The County should complement these planning efforts by identifying critical forest protection and afforestation opportunities.

Any amendments to the Forest Conservation Law should recognize the delicate balance inherent to land planning and encourage the type of development and resource protection mentioned above.

WATER QUALITY ADVISORY GROUP

255 Rockville Pike, Suite 120 • Rockville, Maryland 20850 • 240-777-7700, FAX 240-777-7752



Our evaluation of this law also revealed that the law, as written, is extremely confusing and unclear. When the law applies, when you're exempt and what you have to do to comply is entirely unclear to us, let alone unknowing citizens, neighbors and others potentially regulated by this law. We support MNCPPC's proposal to clarify this law which, in and of itself, should result in additional protection of forest resources.

Thank you in advance for your consideration of our recommendation and insights. If there is anything else that we can do to support your review of this legislative amendment, please do not hesitate to contact us.

Sincerely,
Water Quality Advisory Group

Larry J. Silverman
Chair
7308 Birch Avenue
Takoma Park, MD 20912
301-346-3757

Cc: County Council
County Executive

Attachment: Summary of Member Views

WATER QUALITY ADVISORY GROUP

255 Rockville Pike, Suite 120 • Rockville, Maryland 20850 • 240-777-7700, FAX 240-777-7752



ATTACHMENT

The Forest Conservation Law from the Perspective of the Water Quality Advisory Group Summary of Member Views July 17, 2008

The purpose of this attachment is to provide more detailed comments from the Water Quality Advisory Group regarding proposed amendments to the Forest Conservation Law (FCL) and related matters.

- 1. Importance of the Subject:** The conservation of forests and the protection of street trees are vital to the achievement of water quality goals. It is difficult to imagine that the goals of the proposed stormwater discharge permit can be met without a robust public and private program to enhance forest resources in the County.
- 2. Need for a Statement of Goals:** What is the long term goal of the County with regard to forest cover and tree canopy? What role will forest policy play in the achievement of water quality obligations? We urge the Council and Executive to address these questions as best they can. It will give shape to regulatory decisions, promote consistency through different agencies of government, provide developers and residents with critical guidance and direction, and insure some measure of accountability for the decisions the Council and Executive make on this matter.
- 3. Need for Comprehensive Program:** The practice of Montgomery County and the State of Maryland is to deal with forests and trees through different laws and with separate approaches. Thus the proposed FCL as well as Park & Planning's draft proposals on green infrastructure deal only with forests and not with trees. Whatever the merits of this approach in terms of timing and sequence, WQAG urges to the County Council to pursue more comprehensive treatment of these interrelated matters. We believe it is vital to develop a County program and appropriate ordinances to enhance the urban tree canopy and increase forested lands in the County. We cannot afford to lose sight of the forest or the trees. Both are needed to achieve clean water goals.
- 4. Need for Science Based Policy and Timely Data:** Our review of the data suggests that while the County may be slightly losing total forest cover (-7% since this was tracked in 1994), there has been an increase in forest cover along streams¹. This conclusion must be tempered by the realization that the information base for forestry decision making is weak. The Advisory Group believes that policy should be built on accurate and timely information. While information can never be as good as what one might need, we believe that rapid improvement in the data is a necessary element as the County moves forward on its tree and forest programs. We understand that DEP is rolling out a new remote sensing system that will provide timely and accurate

¹ The '7% overall forest loss' is based on an analysis of plans approved by MNCPPC since 1994. The 'increase in forest cover along streams' is based on the Law's sequencing priority emphasizing reforestation along streams and is supported by a University of Maryland study indicating a 13% increase in forests within the 100' stream buffers in Montgomery County.

information. Unfortunately the progress is very slow, completing a "very tiny portion of the County for one year." WQAG recommends that this program be supported and expedited and encourages the County to continue to seek state and federal help in insuring the essential data is useable and timely.

Timely data and science are essential to effective planning and decision making. Professor Glenn Moglen, who represents the academic community on our Group, gives the following example of data driven planning and the sound decisions that it can guide:

Planning for forest conservation should mean the following things:

PRESERVATION

- Identifying critical existing forest resources (forests draining to high quality streams or to drinking water sources) and earmarking/rezoning such lands to "no development" status.

REFORESTATION

- Identifying riparian buffer areas that could be reforested and targeting such areas for reforestation programs. Such areas should be simply reforested if they are on public lands, and easements or other mechanisms should be used to encourage reforestation on private lands.

- Identifying privately held agricultural land draining to high quality streams or streams that would be vulnerable to significant damage if development were to take place upstream. Like the riparian buffers, such lands should be put on top priority lists for easements or other mechanisms to encourage reforestation.

5. High Priority to Water Quality: Improvements to Water Quality should be an explicit priority of the proposed law. This means that forested areas that provide the most water quality benefits should be given the highest levels of protection. In practice this means that the current policy of Park & Planning to protect riparian buffers should be continued and expanded. Moreover, the County must recognize that some forested and treed areas around storm drains that run underground to streams function as riparian buffers even though they may be remote from the stream. The Advisory Group agrees with Member Eileen Straughan, an environmental engineer and consultant, that rules based on thorough ecological assessments are superior and more likely to achieve their objectives than cookie cutter, one-size-fits-all solutions.²

6. Renew the Tree Canopy As former WQAG Chair, Charles Andrews, has noted, the County

² For forest cover, this recognition should not be cookbook regulation, but instead should be scientifically/biologically/ecologically thought through. By that I mean maintaining forest cover in FUNCTIONAL forest buffers (not visually attractive riparian buffers through which we pass large storm drains that discharge stormwater into stream meander bends and blow out opposite stream banks and cause channel instability! Instead, when the County applies its policy and regulation, it should evaluate site development plans considering demonstrated fluvial geomorphic realities...that streams with access to their natural forested floodplains during flood provide significant water quality benefits (long term nutrient and carbon sequestration/sediment deposition among them) , and those that are disconnected DO NOT... Thus, Montgomery County's regulations, both on the forest conservation and stormwater management/low impact development, should mandate preservation of streams that are currently connected to natural forested floodplains, and reconnection/ re-establishment of forested riparian buffers for those that are not.)

currently has over 300,000 street trees, but lacks a comprehensive program to maintain and enhance these trees. For instance, the average street tree has a lifespan of about 50 years; therefore to maintain the current number of trees about 6,000 new trees need to be planted each year. For the past many years the County has only planted about 1,500 new trees each year, far less than the replacement level. In addition to County initiatives, there should also be incentives and/or requirements for private landowners in urban areas to avoid the unnecessary cutting of mature trees and to plant additional trees. The Advisory Group recommends that the County develop a program of education aimed at helping citizens understand the value of the tree canopy for water quality, cooling, and climate protection purposes. This should be followed by a program of strong regulation on tree removals and aggressive planting programs on public lands, including rights-of-way.

The current RainScapes program, which provides incentives for planting shade trees on private lands should be promoted and expanded. A number of WQAG members have personally participated in events associated with this program and can attest to the high quality and great value of RainScapes.

The WQAG is gratified that the new laws, originally sponsored by Council Member Berliner, passed to mitigate climate change, include a tree canopy element. We believe that the County should establish clear goals for the extent of the tree canopy, and develop programs to implement them. A good starting point is the goals set out in the Forest Preservation Strategy Update 2004. The Advisory Group is also concerned that the average age of Montgomery County trees, especially in the older neighborhoods, make the County especially vulnerable to catastrophic loss of tree cover, should a major storm or epidemic reach this area. WQAG urges the County to develop plans to mitigate this potential for massive catastrophic loss.

7. Animal Control Issue Must be Recognized: WQAG Member Mike Smith, a volunteer with the Friends of Sligo Creek, has noted that many tree planting programs are thwarted by deer predation. Laura Miller, the forester at DEP concurs. Reforestation/afforestation programs must take account of animal control issues. The Advisory Group heard evidence that many tree planting and forest restoration efforts, some of them in response to regulatory requirements, have failed because of predation. Failure to address the two issues in tandem will result in unsuccessful forestry programs. As a practical matter in deciding on mitigation measures for developers or publicly funded replanting programs, decision makers should anticipate deer predation and impose additional measures to account for it. The longer term solution is to manage the deer herd so that new forests have a chance to develop, and to manage the forests so as to restore balance to the different populations. Park & Planning is working hard on this issue. But the task is difficult. These population explosions are a cause and perhaps a symptom of the general unhealthiness of the County's forests.

8. Protection of Agriculture: We believe that the County should continue and expand its efforts to assist farmers and other commercial landowners in protecting riparian buffers and developing ways of improving profitability without sacrifice of environmental values. Former WQAG Member Lonnie Luther, a Montgomery County farmer, urges the Council not to impose permit requirements on farmers for timbering operations. The current practice of requiring only notice, and not a permit application, for commercial non-development forest cutting should be

continued. The WQAG believes that there is a great potential in the County for a sustainable forestry program, associated especially with agricultural property. Dr. Luther, who is also a food scientist at FDA, provided this example of sustainable forestry and of cooperation between County government and County agriculture:

A farmer's perspective: I have 20 acres of forest which will be harvested for lumber in a few years. I plan to thin out the smaller trees from time to time to permit the larger and more desirable species to grow and mature faster. I also have 4 acres of forest along a creek, and I am replanting it, as a riparian buffer, with 1400 trees and shrubs. The Soil Conservation District is providing cost share monies for the riparian buffer, including fencing and stream crossing expenses. I think Federal, State, and County monies are wisely spent on any forestry project, resulting in improved water quality.

WQAG concurs that projects of this sort are of very great value to the County and should be supported.

9. Incentives and Goals for Tree Planting: David Plummer, Montgomery County Soil Conservationist and a member of WQAG and the Forest Advisory Committee, has called for a program of

... incentives (rebates, free trees, coupons for trees from local nurseries, etc.) for people to plant trees on their property. The trees would come with planting and care instructions. This could be coordinated with the tree planting efforts that DPW&T does along the public road right-of-ways. I also believe that the hundreds of acres of open public land should be reforested – highway cloverleaves and medians, school grounds, unused sections of parks, etc.

Planting trees can help to instill a greater appreciation for our environment, so to the extent possible, this County sponsored tree planting campaign should involve volunteers from the local area where trees are being planted.

The Advisory Group believes that tree planting programs are an excellent investment for Montgomery County. WQAG recommends that the Forestry Conservation Advisory Committee and others develop a set of goals for tree planting programs, identify sources of funding and volunteer efforts, including highway agencies, developers, DEP, non-profit organizations, Natural Resources Conservation programs, individual citizens and property owners, and others. Clear goals, a million new trees in five years for example, should be set and a financing and labor strategy should be developed that will ensure successful achievement of the goals.

9. Rule Clarification: Our evaluation of the current Forest Conservation Law also revealed that the law, as written, is extremely confusing and unclear. As WQAG Vice Chair Dusty Rood points out, "When the law applies, when you're exempt and what you have to do to comply is entirely unclear to us, let alone unknowing citizens, neighbors and others potentially regulated by this law. We support MNCPPC's proposal to clarify this law which, in and of itself, should result in additional protection of forest resources."

Clarification and simplification should be approached as part of a comprehensive policy review. The draft Stormwater Permit, the Road Code, the Water Resources Element will all be coming into effect at about the same time as the Forest Conservation Law may come into effect, if it evolves in the Council. Montgomery's forests and trees appear as a whole to be in a serious condition in terms of their health and functions. The combination of changing policies and at-risk resources seems to require a comprehensive plan and program. Members of WQAG submit these observations in the hope that they will assist the County Council and County Executive in formulating and carrying out such a strategic approach to forestland and water management.

Thank you for the opportunity to comment on this vital Council initiative, and thank you for your hard work on this subject.

**ENERGY/AIR QUALITY ADVISORY COMMITTEE**

July 22, 2008

The Honorable
Isiah Leggett
County Executive
Montgomery County
Executive Office Building
101 Monroe Street
Rockville, Maryland 20850

Subject: Forest Conservation Law (37-07)

Dear Mr. Leggett:

The members of EAQAC have considered the effects of the competing proposals to amend the Forest Conservation Law, set forth in both Bill 37-07 and the Elrich Amendments. EAQAC strongly supports the adoption of the Elrich Amendments to the Forest Conservation Law. As the appended comments document sets forth, forests and tree cover provide specific benefits for air quality and reduced energy usage in Montgomery County. Maintaining current air quality levels will require the implementation of certain and strong measures to conserve Montgomery County forest. The proposed Elrich amendments provide the needed measures and a means to implement these measures. EAQAC welcomes questions on the appended comments from you and Montgomery County Council members.

Sincerely,

A handwritten signature in cursive script that reads "David Fierberg".

David Fierberg
Co-Chair, Energy and Air Quality Advisory
Committee

Attachment: EAQAC Comments on Forest Conservation Law Proposals

Cc:
Michael J. Knapp, President, Montgomery County Council
Marc Elrich, Councilmember, Montgomery County Council
Bob Hoyt, Director, Department of Environmental Protection

Department of Environmental Protection

Introduction

The members of EAQAC have considered the effects of the competing proposals to amend the Forest Conservation Law, set forth in both Bill 37-07 and the Elrich Amendments. In considering the various proposals, EAQAC has focused on the possible outcomes of the revised law on air quality and energy usage in Montgomery County. On the whole, EAQAC supports the Elrich Amendments to the Forest Conservation Law. This document explains our concerns about the importance of preserving and encouraging trees and forestation in Montgomery County and why we have concluded the Elrich proposal is the best alternative among those under consideration.

An important consideration is that trees and forests are not “quick fixes”, and that it is far easier to lose forests than replace them. Experience with re-afforestation efforts in Montgomery County has not been positive. Therefore, if the County is serious about improving its local climate and decreasing its impact on climate change, then it must focus on maintaining as much existing forest as possible, and regaining segments of forest lost to this point. Replanting is rarely successful, is very expensive, and uses many resources. In addition, the benefits of trees and forests are difficult to overstate: existing and new research continue to show the benefits of trees for air quality, energy savings, public health and many other ecosystem services. This document outlines these benefits and their relevance to Montgomery County in some detail, and then addresses the most relevant of the proposed changes to the Forest Conservation Law as they relate to air quality and energy use in Montgomery County.

Overview

In considering Forest Conservation legislation, Montgomery County legislators must consider larger questions and issues, such as:

1. What do residents want the County to look like in 10 years?
2. Do residents want displacement of down county forest with up-county forest?
3. How can the County increase the quantity of existing riparian forest that is protected and otherwise re-planted?
4. How can the County protect forested areas throughout the County, and not just adjacent to streambeds? Pushing County forests towards the streambeds reduces benefits from forests and tree cover that are achieved when the forests are available across the County. Limiting forests to stream beds increases the reach of health impacts from air pollution.
5. How can the County combine legislative, regulatory, and other strategies to remedy mistakes made in the past that have led to the loss of forests?

Because forest conservation, or lack of, can have such major impacts on energy and air quality in the state, the County's Energy and Air Quality Advisory Committee (EAQAC) is taking this opportunity to provide the County Council with comments relevant to its consideration of existing Forest Conservation Law proposals. EAQAC supports significant pieces of Councilman Mark Elrich's proposal as they relate both directly and indirectly to the air quality of County residents and the opportunities to achieve energy conservation in the County.

Overview of Air Quality, Health, and Environmental Issues Associated with Forest Conservation

Forests in the United States are facing and succumbing to increasing pressures. Nowhere in the nation is this more evident than in Maryland and particularly in the areas surrounding Washington, DC, which has one of the fastest growing populations in the United States in recent years.¹ The loss of forest in Maryland has been dramatic over the last 40 years. EAQAC has reviewed graphic presentations showing forest loss in the County over the last several decades. The visual demonstration, associated with the Elrich proposal, of forest loss across the County is more powerful than words.

Montgomery County forests remain under increasing development threats. To date, development has fragmented and parcelized existing County forest. What County forest does remain is subject to over browsing by an overabundant and damaging deer population that, restricted to remaining forest areas, destroys their capacity to maintain themselves.

Montgomery County's forests provide local health protections² and also protect the larger area that encompass many of the Chesapeake Bay's streams and rivers from air deposition of pollutants, both directly (direct deposition) and indirectly (deposition that arrives at streams through runoff). Only 60 percent of the Chesapeake Bay's streams and rivers have riparian buffers.³ It has been estimated that at least 30,000 miles of forest buffers are needed to restore the Bay.⁴

¹ See e.g., Cohn, D'Vera. (Apr. 15, 2005). *D.C. Area Continues Strong Growth*. Last retrieved July 18, 2008 from <http://www.washingtonpost.com/wp-dyn/articles/A52779-2005Apr14.html>.

² See e.g., Global Network for Forest Conservation, *Publications and references*. Last retrieved July 18, 2008 from <http://www.iufro.org/science/task-forces/forests-trees-humans/publications-and-references/>.

³ See e.g., Supporting Information for the New Riparian Forest Buffer Goal. (July 24, 2003). IC Agenda Item II. Last retrieved July 18, 2008 from

Many existing efforts to protect the Bay are concentrated on preserving farm land. After much funding, these efforts are consistently deemed to be falling short.⁵ The result is that too much development is forced onto forest land with severe consequences for Bay water quality. As 80 percent of Bay forests are in private ownership, and 40 percent of forests are on farms,⁶ the County needs to focus efforts on preserving and enhancing forest lands, especially riparian forests.

Our County's health cannot be segmented into water issues, air issues, and others. Air quality and energy use and sources are all related to water and land quality. Therefore, while EAQAC's focus is on air and energy issues, this cannot be done without mention of related issues. It is critical to understand that with every forest conversion, there are far-reaching potential damages to the environment, each reaching air quality and County health. This is true regardless of the reason for the forest conversion. Conversion of forest to intensive agriculture or development causes fundamental changes in ecological and physical processes that maintain the quality of water, land, and air. These include

- Disruption of wildlife corridors and habitat fragmentation;
- Groundwater depletion;
- Downstream flooding;
- Pollution to fresh water sources caused by pesticides/herbicides, fertilizer, and sedimentation;
- Sub-surface hydrologic flow changes;
- Water diversions;
- Re-contouring of slopes;
- Deep soil disruptions;
- Increased peak flows in streams, causing stream bank failure and mass wasting of land;

<http://archive.chesapeakebay.net/pubs/subcommittee/ic/doc-RFB-Goal-Supporting-Info-08-07-2003.pdf>.

4 *Id.*

5 See e.g., Blankenship, K. (2000). *Bay Program falling short of 40% goal to cut nutrients*. Last retrieved July 18, 2008) from <http://www.bayjournal.com/article.cfm?article=1806>.

6 See e.g., Blankenship, Karl. "State of the Chesapeake Forests: Public perception often fails to look at importance of forests beyond trees." *Bay Journal*. Last retrieved 18 July 2008 from <http://www.bayjournal.com/article.cfm?article=2898>.

- Microclimate changes affecting plants and animals;
- Endangered species are harmed and their habitat depleted;
- Aesthetic impacts;
- Increased infrastructure needs and costs; and
- The contribution of this deforestation to climate change.

Benefits of Forests and Trees Generally

The benefits of trees have been well documented for both urban and rural areas. The protections and services they provide will differ depending on whether the setting is urban or rural, but each protection and service is equally important to the County. Development and growth in Montgomery County in recent years makes relevant the benefits that trees provide both types of areas.

Forests are the most beneficial land use for absorbing nutrients and holding sediment, and for absorbing nearly 90 percent of the nitrogen falling from air pollution.⁷ Nitrogen deposition is a significant problem affecting the Chesapeake Bay, as well as the source waters for the Bay.⁸

Trees sequester many pollutants from the atmosphere,⁹ including carbon dioxide and monoxide (CO₂, and CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), ozone (O₃) and particulate matter of ten microns or less (PM₁₀) and, in turn, replenish the atmosphere with oxygen. Trees also absorb enough CO₂ on each acre, over a year's time, to equal the amount produced when you driving a car 26,000 miles.¹⁰ Trees remove gaseous

7 See Chesapeake Bay Program, . "Forests." 1 Chesapeake Bay . Last retrieved 18 July 2008 <http://www.chesapeakebay.net/forests.aspx?menuitem=14640> and Blankenship, Karl. "State of the Chesapeake Forests: Public perception often fails to look at importance of forests beyond trees." *Bay Journal*. Oct. 2006. Last retrieved 18 July 2008 from <http://www.bayjournal.com/article.cfm?article=2898>.

8 Sheeder, Scott A., James A. Lynch, and Jeffrey Grimm. "Modeling Atmospheric Nitrogen Deposition and Transport in the Chesapeake Bay Watershed ." *Journal of Environmental Quality* . (2002) 31:1194. Last retrieved 18 July 2008 from <http://jeq.scijournals.org/cgi/content/abstract/31/4/1194>.

9 See e.g., American Forests. "Trees and Ecosystem Services." Last retrieved 18 July 2008 from <http://www.americanforests.org/resources/urbanforests/naturevalue.php>.

pollutants by absorbing them through the pores in the leaf surface. Particulates are trapped and filtered by leaves, stems and twigs, and washed to the ground by rainfall.

- Large, healthy trees greater than 77 cm (30") in diameter remove approximately 70 times more air pollution annually (1.4 kg/yr) than small healthy trees less than 8 cm (3.2") in diameter (0.02 kg/yr), which are typically used in forest re-plantings.¹¹
- Air quality increases with increased percent tree cover.

Dave Nowak, Ph.D., of the USDA Forest Service conducted research in 50 US cities and developed a methodology to assess the air pollution removal capacity of urban forests with respect to the above pollutants.¹² American Forests uses this research to determine the work trees do to clean the air with CITYgreen software—a desktop GIS program that calculates the value of trees to urban environments. The program estimates the amount of pollution being deposited within a given study site based on pollution data from the nearest city then estimates the removal rate based on the area of tree and/or forest canopy coverage on the site.

Air Quality benefits are reported both in lbs removed per year, as well as annual dollar savings. Dollar values for pollutants are based on the median value of the externality costs set by the Public Service Commission in each state.

10 See e.g., Colorado Trees. "Benefits of Trees in Urban Areas." Last retrieved 18 July 2008 from <http://www.coloradotrees.org/benefits.htm>.

11 Nowak, David J. "THE EFFECTS OF URBAN TREES ON AIR QUALITY." USDA Forest Service. Last retrieved 18 July 2008 from <http://www.americanforests.org/resources/urbanforests/naturevalue.php>.

12 Nowak, David J. "Air Pollution Removal." USDA Forest Service. Last retrieved 18 July 2008 from <http://www.americanforests.org/downloads/graytogreen/airpollution.pdf>.

Trees and Air Quality around the Country¹³

City	Pounds of pollutants removed annually by trees	Annual value of trees with respect to air pollution
Washington, DC	878,000	\$2.1 million
Atlanta, GA Metro Area	19,000,000	\$47 million
Portland, OR Metro Area	2,000,000	\$4.8 million
Denver, CO Metro Area	1,100,000	\$2.6 million

Forests have significant potential to sequester large amounts of carbon.¹⁴ This capacity helps to regulate our local, County climate and thereby reduce the demand for energy within and beyond our County, and thereby reduces the potential for the generation of pollutants and contaminants that make their way to us via atmospheric transport and deposition. A recent Casey Trees report, while focusing on urban trees, summarized the many other benefits of local forests and trees, including:

- Improved air and water quality;
- Increased property values; and
- Relief from summer heat and winter chills, each of which helps reduce our local energy consumption.

In a neighborhood setting, trees save energy and money.¹⁵ Homes with three well-placed shade trees enjoy summer air conditioning costs that are up to 40% lower than homes without them. Non-treed area temperatures typically average 5 to 10 degrees higher than other area temperatures.¹⁶ Trees across a region also emit water vapor that cools hot air.

13 See <http://www.americanforests.org/graytogreen/air/>.

14 See e.g., Nowak, David J. "The Potential of U.S Forest Soils to Sequester Carbon and Mitigate the Greenhouse Effect ." *J. Environ. Qual.* (2004) 33:1163. Last retrieved 18 July 2008 from <<http://jeq.scijournals.org/cgi/content/full/33/3/1163>>.

15 See e.g., Energy Efficiency . "Household guide to saving energy and money." State of Oregon. Last retrieved 18 July 2008 from <<http://www1.wrd.state.or.us/pdfs/PacificPowerConserve.pdf>>.

16 See e.g., Tree Link. "Energy Efficiency." *Factoids*. Last retrieved 18 July 2008 from <http://www.treelink.org/linx/factoid.php> and U.S. EPA. "Trees and Vegetation." *Heat Island Effect*. U.S. EPA. Last retrieved 18 July 2008 from <<http://www.epa.gov/hiri/strategies/vegetation.html>>.

Further, tree canopies provide refreshing shade for parks, streets, and parking lots, reducing heat retention.

Benefits/Importance of Forestation to Air Quality

Local forests and other trees protect our health. Trees release oxygen into the air. Each acre of trees produces enough oxygen for 18 people.¹⁷ Trees filter many harmful, health-threatening pollutants from the air. Trees help to settle out, trap and hold particle pollutants (dust, ash, pollen and smoke) that can damage human lungs. As these trees have been removed, the number of days of unhealthy air quality to which County residents are subjected has risen.

Nonetheless, while tree removal may not be directly causal, the increased development and associated increase in vehicles miles traveled and energy consumption in combination with the removal of trees to which Montgomery County has been subject have removed an important health protection measure. And the results of unhealthy air are clear -- air pollution across our County threatens human health, keeping children and teachers out of school,¹⁸ and increases emergency room visits and health care costs.

Forests and local trees decrease levels of asthma-causing pollutants.¹⁹ The Baltimore-Washington, DC metropolitan area suffers from one of the highest asthma rates in the nation,²⁰ reportedly affecting more than 1 in 20 of our residents, including more than 10,000 children. This rate greatly exceeds the national average, which is less than 1 in 50 people. Because of their capacity to filter many harmful, health-threatening pollutants from the air, modest increases of 10% tree canopy cover in the New York City area were shown to reduce peak ozone levels by up to 4 ppb, or nearly 3% of the maximum and

17 David J. Nowak, Robert Hoehn, and Daniel E. Crane, *Oxygen Production by Urban Trees in the United States*. (2007) Last retrieved July 15, 2008 from http://www.nrs.fs.fed.us/pubs/jrnl/2007/nrs_2007_nowak_001.pdf.

18 See e.g., Natural Resources Defense Council. "Asthma and Air Pollution." Health. 8 June 2005. NRDC. Last retrieved 18 July 2008 from <http://www.nrdc.org/health/effects/fasthma.asp>.

19 See e.g., American Lung Association. "American Lung Association Issues State Of The Air Report." Medical News Today. 2 May 2008. Water, Air Quality, Agricultural News. Last retrieved 18 July 2008 from <http://www.medicalnewstoday.com/articles/106125.php>.

20 See e.g., Casey Trees. "The Case for Trees." 2007. Casey Trees. Last retrieved 18 July 2008 from <http://www.caseytrees.org/resources/casefortrees.html>.

37% of the amount by which the area exceeded its air quality standard. Similar results were found along the East Coast from Baltimore to Boston and in Los Angeles. As part of the Baltimore-Washington metropolitan area, the County has a significant responsibility to do what it can reduce the number of high-ozone, unhealthy air quality days. A study by Columbia University in New York published in the May 2008 issue of the *Journal of Epidemiology and Community Health* found that asthma rates among children aged four and five fell by 25% for every extra 343 trees per square kilometer. U.S. rates of childhood asthma soared 50% between 1980 and 2000.²¹

States that suffer air quality problems can make headway against these problems. For example, states can use forest management practices to meet federal clean air standards through state implementation plans (SIPs).²² They have been used successfully to help states meet clean air standards. Significantly, once management of local forest vegetation is included in a SIP, the state becomes legally bound to follow the document.

Local forests and tree cover also help slow climate change in at least two ways. First, by lowering temperatures, trees reduce our energy consumption and decrease power plant emissions that contribute to global climate change. Trees also use photosynthesis to rid the atmosphere of carbon dioxide, the primary gas responsible for global warming.²³

Second, trees absorb the most prevalent and a major greenhouse gas, carbon dioxide.²⁴ On April 22, 2008, Montgomery County passed a bill (32-07) concerning environmental sustainability and the development of a Climate Protection Plan. This would involve reducing greenhouse gas emissions in the county by 80% by January 2050, including a plan to stop increasing countywide greenhouse gas emissions by 2010 and a 10% reduction every 5 years through 2050. Actions may also be recommended to air and

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- 21 Lovasi, Gina, et al. "Children living in areas with more street trees have lower asthma prevalence." *J Epidemiol Community Health* *J Epidemiol Community Health* (May 1 2008) 10:1136. Last retrieved 18 July 2008 from <http://jech.bmj.com/cgi/content/abstract/jech.2007.071894v1>.
- 22 See e.g., MDE. "June 2007 Baltimore Nonattainment Area 8-Hour Ozone State Implementation Plan and Base Year Inventory." *Maryland Department of the Environment* Last retrieved 18 July 2008 from http://www.mde.state.md.us/assets/document/AirQuality/BALT_OZONE_SIP/BALT_OZONE_SIP.pdf.
- 23 See e.g., Casey Trees. "The Case for Trees." 2007. Casey Trees. Last retrieved 18 July 2008 from <http://www.caseytrees.org/resources/casefortrees.html>.
- 24 See e.g., Hi Energy. "Global Warming." *Clean Energy*. Last retrieved 18 July 2008 from <http://www.hi-energy.com.tw/selection-1-english.htm>.

water quality, habitat restoration, and a high quality of life for all County residents.

Part of the Climate Protection Plan includes the identification of "... ways to increase sequestration of greenhouse gases, including a Tree Canopy Initiative that contains a plan for increasing the County's tree canopy; ..." ²⁵ and "...identify a strategy to reduce vehicle miles traveled in the County; ..." ²⁶

In the light of the above, maintaining as many trees as possible in the county would be in accordance with the vision behind this new action.

Local forests are also important to our water quality. By reducing air deposition of nitrogen and other air and water contaminants, it is clear that healthy watersheds are connected to Healthy Forest watersheds. ²⁷

For these reasons, rigorous forest protection standards AND rigorous tree cover protection standards are needed.

Core Items for a Final Forest Conservation Law

A final forest conservation law must address several items that are critical to preventing forest loss, replacing lost forest, and improving management of existing forest.

Afforestation

Several land categories have afforestation potential. They include former mining/pit areas, brownfields, riparian areas, and marginal agricultural lands.

Prevention of Loss of Existing Forests

There are many ways the County can address the prevention of loss of existing forests. There is no one-size fits all approach to preventing forest loss. Instead, it

25 See <http://www.montgomerycountymd.gov/content/council/pdf/bill/2007/32-07.pdf>, at lines 224-226.

26 See <http://www.montgomerycountymd.gov/content/council/pdf/bill/2007/32-07.pdf>, at line 237.

27 See e.g., Virginia Dept. of Forestry. "Strategic Plan." DOF 2014. Last retrieved 18 July 2008 from http://www.deq.state.va.us/export/sites/default/vrrbac/presentations/1-18-2006/VDOF_1-18-2006.pdf.

will take a combination of approaches. In considering these approaches, the County should consider, at a minimum:

- Land use zoning;
- Sustainable forestry practices;
- Green belts;
- Smart growth and forest conservation;
- Acquisition;
- Education of county officials about policies that preserve forests and sequester carbon;
- Tax credit program for forest conservation to farmers or businesses who install agricultural best management practices on farms; and
- Offset program for developers (fee program for parties who clear forests/tree cover -- pay a carbon fee for the carbon loss associated with clearing for development or offset cleared acreage by conducting afforestation of equivalent acreage and carbon value).

Improve Management of Existing Forests

County efforts also should focus on improving existing forests through better management. As noted previously, for example, existing forest has difficulty maintaining itself due to constant pressure from and overabundant deer population. Regardless, protection of our existing resource is critical, because it exists and need not be created from scratch. While as a society we have accomplished significant engineering feats, the creation of a sustainable forest has not been accomplished with any degree of significant duration, and certainly any efforts to do so have not been done for little expense. Therefore, protecting our existing forest should be a tantamount goal. To do so will require, at a minimum:

- Ensuring regeneration;
- Controlling herbivores;
- Maintaining forest health and controlling pests and disease;
- Providing tax rebates to private landowners who are 3rd party certified sustainable foresters;
- Establishing carbon credit program for payments to private landowners who sequester carbon through improved management practices; and

- Considering variable grade carbon sequestration credits depending upon the method of sequestration. For example, afforested acres that are permanently eased would have a higher rating versus other management practices.

EAQAC Supports Policies that Support a No-Net Loss Approach to Tree Cover and Forest Conservation

EAQAC supports an approach to forest conservation that seeks No Net Loss of forests. EAQAC recognizes, however, that a no net loss approach to forest conservation and protection is not a panacea; it requires a steadfast commitment and dedication to implementation. Therefore, EAQAC supports a policy of No Net Loss as long as there are significant and demonstrable requirements that will back the adoption of any such policy.

No Net Loss and the associated concept of "mitigation banking" have been used for many years at the federal and state levels. In addition, other countries, including Canada and Great Britain, have used the concepts.²⁸

Only in rare instances have no net loss goals been met.²⁹ For example, in 1989, then-President George Bush announced a no net loss policy for wetlands in 1989. The approach implemented set no net loss as a minimum standard. A subsequent National Academy of Sciences (NAS) study reported that even the minimal goal of no net loss was not being achieved for wetlands.

Implementing a No Net Loss policy is not easy. Implementation difficulties include:

- Defining/measuring loss. The definition of loss is important to determining any gains. For example, it is simple to measure acreage, but key may be ecologic, as for wetlands, or in the case of forest conservation, the key is air quality function and energy conservation.

28 See e.g., Sierra Club. "What's Wrong with "No Net Loss"?" Forest Protection Campaign. 1 Apr. 2005. Last retrieved 18 July 2008 from <http://redwood.sierraclub.org/sonoma/ForestProtection/WhatsWrongNoNetLoss.html>.

29 See e.g., Hewitt, David. "Protecting and Restoring America's Wetlands." Agency Actions to Improve Mitigation and Further the Goal of No Net Loss. 26 Dec. 2002. U.S. Army Corps of Engineers. Last retrieved 18 July 2008 from <http://www.saj.usace.army.mil/regulatory/assets/docs/mj/nr122602.pdf>.

- **Appropriate Mitigation Ratios.** Proponents of forest conservation may seek higher mitigation ratios to compensate for the loss – ratios higher than those that developers and other entities with similar interests will say they can live with.
- **Enforcement.** It is hard to enforce No Net Loss. No Net Loss is not well defined either by legal precedent, or by tight language
- **Avoiding Forest Destruction.** There is the distinct potential for No Net Loss in practice to turn out to be an ineffectual mitigation for forest destruction. Projects move forward promising mitigation that does not take hold.
- **No Net Loss is sometimes confused with offers “not to destroy acres”.** These offers are not offers to anything beyond what the County should be doing anyway if it is concerned about air quality and health above all else.
- **Monitoring and Enforcement.** No Net Loss can suffer from inadequate long-term monitoring and enforcement. In part this is because it is unclear how long it takes to create healthy forest or tree cover. Without such knowledge, it is not clear how long those creating forest will have to tend to the area – it may be on the order of decades. As a result, all mitigation measures that involve creating forests should bind parties to a long-term monitoring plan developed by an independent third party and the parties should be bonded in case the mitigation bank fails to produce. Akin to brownfields that are “re-used”, the County should consider institutional controls to ensure long-term durability of newly created forests.
- **Restocking.** Restocking of forests does not work well, and the potential gains are hard to monitor. In addition, it is unclear who is to do such monitoring and how they are to undertake monitoring. As noted, “If tree planting is invoked as the engine of forest restoration used in a compensatory mitigation (no net loss) context, it needs to be shown to be highly reliable and effective. The burden of proof belongs on the proponents of restocking as mitigation, aside from the multi-decade time lag in functional restoration of forest after restocking of severely degraded forest. If forest is severely degraded (soil loss, exposure of subsoil, erosion, dense brush or tanoak) then there is ample reasonable doubt that restockings of conifers seedlings will not be at risk of high mortality, even with herbicide use.”³⁰
- **Mitigation Banking.** A proposed key component to a No Net Loss approach to forests and other ecosystems and habitats, mitigation banking typically does not work well. Generally, an understocked forest is already forest, which should be allowed to grow healthy, rather than be converted to have in place

30 Peter Baye, Ph. D., plant ecology biologist [quoted from <http://www.rrraul.org/PRMD.pdf>].

forest in another area or a rebuilt forest elsewhere. Additionally, there is no guarantee that the acres being preserved or restored would in fact in any meaningful way replace or compensate for the ecological values and functions of the forest which is permanently being destroyed.³¹

Nonetheless, the State of Maryland legislature has recently considered legislation to study no-net loss of forest.³² Therefore, any resolution of how to proceed with the Forest Conservation Law should allow room for the County to adhere to whatever steps the State decides to follow if in fact the State follows through with studies of the No Net Loss approach to forests.

EAQAC Specifically Supports

With regard to the existing proposals, EAQAC specifically supports the following:

- Elrich resolution to raise the fee in lieu of reforestation from 90 cents to \$2/sq foot. The proposed provision injects incentive to preserve forest, and the market will follow this increase in price.
- Employ a fee for afforestation of land not currently forested.
- Expand scope of coverage to properties smaller than 40,000 sq ft.
 - The appropriate size of the property for purposes of determining scope of coverage is debatable and should be considered in the context of a Tree Protection law. If the Tree Protection law were to cover the smaller lot, EAQAC believes it may not be necessary to have the Forest Conservation Law cover lots below 20,000 sq. ft. If the Tree Protection law were not to cover the smaller lot, the Forest Conservation Law should cover lots down to a 10,000 sq. ft. size.
- Expand scope of coverage to properties with 5,000 square feet of disturbance.
- Employ reforestation requirements that are in line with a goal of no net loss. This effort should acknowledge that that losses to this point have been vast and that reforestation is extremely difficult and with poor results to this point. Thus, the County Council should consider if the actual

31 R. Turner, A.M. Redmond, and J.B. Zedler, 2001. Count it by Acre or Function: Mitigation Adds up to Net Loss of Wetlands. National Wetlands Newsletter 22:6 [Quoted from http://www.eany.org/issues/topics/Nowhere_Near_No-Net-Loss.pdf, Julie M. Sibbing, Wetlands Policy Specialist, National Wildlife Federation].

32 See e.g., S.B. 0431, Task Force to Study A No Net Loss of Forest Policy (Effective June 1, 2008).

requirements should exceed 1 for 1. For examples, when mitigation occurs off-site in existing forest, the requirement should be 4 acres for every 1 acre of reforestation needed.

- Maintenance period following planting should be increased to a minimum of 5 years.
- The creation of a new term "Champion Tree Class", as the largest known tree of each species and all others within 10% of the point value.
- Advanced notice of at least 10 days prior to forest cutting etc should be given to the Planning Director and residents of adjoining properties.
- Remove privilege for institutions and agricultural and commercial logging and timber interests to avoid the Forest Conservation Law's requirements.

EAQAC Does Not Support

EAQAC does not support the denial of a building permit for a property that has a violation of the Forest Law, as long as that violation was rectified and properly mitigated. The key is focusing on a goal of no net loss, and it is not clear how denying a party a building permit that may be unrelated to forest conservation or loss is relevant to a prior Forest Law violation.

Conclusion

Keeping forests healthy costs less than trying to mitigate and/or restore damaged lands. Maintaining our existing forests also costs significantly less than addressing the many adverse impacts of de-forestation, including decreased air and water quality, increased energy use, and adverse public health impacts. As detailed in this comment, EAQAC supports a renewed commitment to conserve forests and tree cover in Montgomery County. We urge the adoption of an immediate goal to achieve no net loss of existing forests and tree coverage and a long-term goal to increase forestation throughout the County. Specifically, we urge adoption of the Elrich Amendments. Finally, we would also like to note our support for greater efforts to develop and impose similar policy initiatives relating to green requirements in urban areas because of the important contribution trees make to urban air quality and energy conservation efforts.

September 17, 2008

Dear Members of the Montgomery County Council:

In re: (1) Bill 37-07, Forest Conservation, and
(2) amendments submitted by Council Member Elrich
(3) need for a County Council resolution to extend the county's forests

Truly, global warming due to climate change is the major issue facing our planet. Fighting this climate change is a top priority for the League of Women Voters both nationally and locally. We are, therefore, writing to ask that you, as members of the County Council, now pass the strongest possible forest conservation law for the county.

The Council has already passed several important bills this year to address global warming. It is definitely time to recognize the importance of forests and tree canopy to contribute to fighting global warming as well.

While the League of Women Voters, like the County Council, is concerned about other issues, such as providing sufficient housing and amenities for development, we have decided that **the climate change battle must be the overriding priority and urge you to recognize this need as well.**

In addition to the passing the strongest possible forest conservation law amendments, the League urges you to promptly set **a goal for the amount of forest the county should have.**

A prior County Council missed the opportunity in 2000 to take the advice of that year's Forest Conservation Strategy Task Force which urged that the county set a goal of no net loss of forest. Nine years later, because of the urgency of global warming issues, Montgomery County needs to **go beyond a goal of no net loss of trees to set a goal of increasing the forest and tree canopy.**

Sincerely,

Diane Hibino, President
Linda Silversmith, Chair, Natural Resources Committee

B 37-07



MONTGOMERY COUNTY
COUNCIL

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OFFICE OF MANAGEMENT AND BUDGET

MEMORANDUM

Isiah Leggett
County Executive

Joseph F. Beach
Director

January 22, 2008

TO: Michael J. Knapp, Council President

FROM: Joseph F. Beach, Director, Office of Management and Budget

SUBJECT: Council Bill 37-07, Forest Conservation – Amendments

The purpose of this memorandum is to transmit a fiscal impact statement to the Council on the subject legislation.

LEGISLATION SUMMARY

Bill 37-07, Forest Conservation would revise the forest conservation law in the following ways:

- Ensure changes to certain criteria and requirements for certain level of reviews as proposed in Bill 37-07;
- Establish a County Forest Conservation Coordinator;
- Establish forest conservation requirements for County school projects;
- Allow the Planning Director to waive certain requirements only if the County Forest Conservation Coordinator concurs with the Planning Director;
- Require a tree expert to be licensed to perform duties assigned to a tree expert by the Forest Conservation Law;
- Specify that approval of certain documents may be revoked if the approving authority relied on false or misleading statements in approving the documents;
- Lower the threshold level of cutting and clearing required to trigger the Forest Conservation Law;
- Amend certain retention, afforestation, and reforestation requirements;
- Amend certain ratios of forest removed to forest planted;
- Amend certain forest mitigation requirements and procedures;
- Amend certain variance requirements;
- Modify certain Forest Conservation Fund requirements;
- Establish certain grandfathering criteria;
- Prohibit the Director of Permitting Services from issuing a building permit if land was cleared in violation of the Forest Conservation Law;
- Require certain applicants to notify certain other property owners of certain proposed actions under the forest conservation law, and specify the time period for notice to property owners and the Planning Director;
- Allow an aggrieved party to file a private civil action to enforce the Forest Conservation Law;
- Make clarifying changes to Bill 37-07; and
- Generally amend the Forest Conservation Law.

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Office of the Director

FISCAL SUMMARY

The Department of Environmental Protection (DEP) and the Department of Permitting Services (DPS) report this legislation will not have any fiscal impact. The Department of Public Works and Transportation (DPWT) and the Maryland-National Capital Park and Planning Commission's (M-NCPPC), however, highlight fiscal impacts on each department.

The Department of Public Works and Transportation reports fiscal impacts that primarily include the Division of Operations and the Division of Capital Development (DCD). The Division of Operations does not believe there is a significant impact from Bill 37-07, but does believe there is the potential for a minor, secondary labor burden through the Tree programs. The Division notes in the Maryland-National Capital Park and Planning Commission's proposed changes, the fiscal impact would most likely be restricted to staff time used to review the Division of Capital Development's plans for tree protection purposes. This is currently done for DCD when required by M-NCPPC and usually requires between two to five (2 to 5) hours to complete each project. The Division estimates roughly two to three (2 to 3) more projects per month. The overall impact of staff time would increase by seven to ten (7 to 10) hours per month or approximately two hours per week, at about \$38.50 an hour plus benefits (or \$5,000 per year). If overtime hours were used instead, the Division estimates a cost of approximately \$7,500.

The Division of Operations further notes, on a non-fiscal note, both documents suggest including the term "Certified Arborist" in the Definitions Section, but makes no mention of the International Society of Arboriculture (ISA), which governs the certification process for the industry. The Division has reached out to the ISA, who informed them that if there is no "valid and reliable measure of assessment to be defined as certification" or if there is a measurement that they deem not appropriate they may seek a legal remedy against the government agency using the term.

The Division of Capital Development notes, the proposal will require replacement planting at a 1:1 ratio whenever 10,000 square feet of forest is removed. There will be a cost increase depending on the project and how much forest will be affected. One of the affected projects is M83. At this time, the Division has eleven alignments for this planned road. The number of alignments has an impact on a forest. Under Bill 37-07, the threshold is being changed from 40,000 to 10,000 square feet; hence, there will be an increase in the cost of the project. The Division is not able to provide an estimate for the Capital Improvements Program (CIP) road projects at this time.

The M-NCPPC prepared an analysis that compares the original bill with the proposed amendments, and with a possible third alternative. The main portions of the bill that affect the number of plans that must be reviewed, approved (either by the Planning Board or Planning Director), inspected, and enforced are as follows:

- Size of the lot to which the law is applicable: 40,000 square feet or greater (Bill) 10,000 square feet or greater (Amendments)
- Amount of clearing proposed: 40,000 square feet or greater (Bill) 5,000 square feet or greater (Amendments)

The Planning Board notes, the original bill does not significantly change the number of plans that would have to be processed and could be handled with existing staff. The Planning Board further notes, if all the amendments are approved, approximately 166 additional plans would have to be processed. This, in turn, approximately doubles the number that is currently handled; consequently, the Board estimates there would be a cost of approximately \$1.6 million (Please see the attached spreadsheet for this calculation). On the other hand, if only the amount of clearing was changed, the Board estimates this would result in an additional 30 to 35 plans; costing approximately \$400,000.

Stan Edwards from the Department of Environmental Protection; Alicia Thomas from the Department of Permitting Services; Harold Adams (Division of Operations) and Bruce Johnston (Division of Capital Development) from the Department of Public Works and Transportation, and Gwen Wright from the Maryland-National Capital Park and Planning Commission contributed to, and concurred with the analysis.

Jfb:th

Attachment

cc: Timothy L. Firestine, CAO
Rebecca Domaruk, CEX
Robert G. Hoyt, Director, DEP
Stan Edwards, DEP
Alicia Thomas, DPS
Gwen Wright, M-NCPPC
Harold Adams, Division of Operations, DPWT
Bruce Johnston, DCD, DPWT
Brady Goldsmith, OMB

	Planning Boards Proposal	Councilmember Elrich's Proposal*	Alternative Proposal*	Costing	Planning Boards Proposal	Councilmember Elrich's Proposal*	Alternative Proposal**	
New Staff								
Technicians	0	1	1	Compensation	\$0	\$71,600	\$71,600	
				Other operating exp	\$0	\$5,000	\$5,000	
Reviewers	0	4	1	Compensation	\$0	\$324,500	\$81,100	
				Other operating exp	\$0	\$20,000	\$5,000	
Inspectors	0	9	2	Compensation	\$0	\$730,200	\$162,300	
				Other operating exp	\$0	\$45,000	\$10,000	
Lawyers	0	1.5	0	Compensation	\$0	\$138,000	\$0	
				Other operating exp	\$0	\$10,000	\$0	
				Subtotal Compensation	\$0	\$1,264,300	\$315,000	
				Subtotal Other Operating Cost	\$0	\$80,000	\$20,000	
				Subtotal Staffing	\$0	\$1,344,300	\$335,000	
Equipment								
Vehicles	0	9	2	Hybrid Vehicle***	\$0	\$225,000	\$50,000	
Cameras	0	9	2	Cameras	\$0	\$13,500	\$3,000	
Laptops	0	9	2	Laptops****	\$0	\$22,500	\$5,000	
Cell Phones	0	9	2	Cell Phones*****	\$0	\$9,720	\$2,160	
				Subtotal Equipment Cost	\$0	\$270,720	\$60,160	
				Total Costs	\$0	\$1,615,020	\$395,160	
*Elrich proposal includes a minimum of 166 additional plans as direct result of reducing the minimum lot size to 10,000 square feet and 5,000 square feet of forest removal								
Not included is an unknown number of plans that do not require sediment control permits for special exceptions and recorded lots removing any forest in a environmental buffer or SPA.								
**Alternative proposes 40,000 sq. ft. minimum lot size and 5,000 sq. ft. of forest removal								
Approximately 30- 35 more plans per year.								
***Hybrid Vehicle cost does not include the maintenance and fuel costs								
****Lap top costs include licenses cost.								
*****Cell phone costs include costs with PDA.								